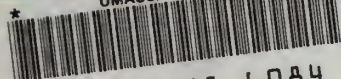


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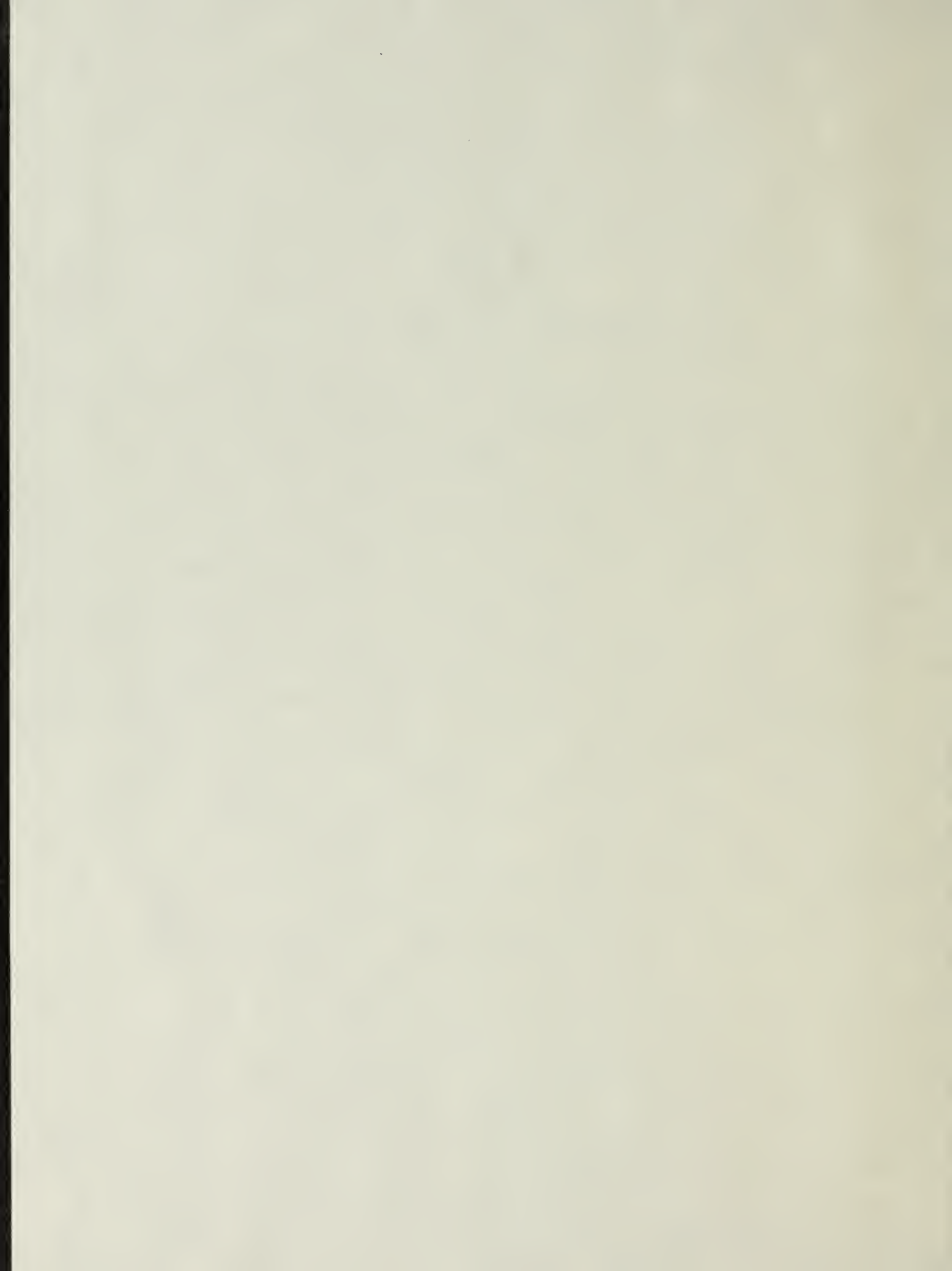


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ANNUAL PLANNING INFORMATION REPORT FISCAL YEAR 1980 LOWELL LMA



LABOR AREA RESEARCH PUBLICATION

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ANNUAL PLANNING INFORMATION REPORT

FISCAL YEAR 1980

LOWELL, MASSACHUSETTS

LABOR MARKET AREA

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P R E F A C E

The Annual Planning Information (API) Report provides tabular data and an analysis of recent and anticipated employment and unemployment developments. It includes manpower information on the insured unemployed, as well as unfilled job openings and applicant characteristics in order to provide a comparison of labor demand and supply.

Hopefully, the API Report will meet many of the information needs of manpower and community planners, educators, anti-poverty organizations, local and state officials, businesses, labor, and community leaders, and others who need accurate and timely area manpower and job market information for decision-making purposes.



I. Highlights and Conclusions

Population projections of the Lowell Labor Market Area indicate that the area's population in Fiscal Year 1980 should total 226,939 which is an increase of six percent over the 1970 level. The area's labor force participation rate should be 69.1 percent in 1980.

Nonagricultural wage and salary employment in the LMA increased by 2,700 workers over the past year to a total of 69,700 in March 1979. This increase resulted primarily from growth in the durable goods industries of the manufacturing sector. Within the nonmanufacturing sector, noteworthy growth occurred in the wholesale and retail trades.

At 6.4 percent, the unadjusted unemployment rate in March 1979 was the same as in March 1978; however, there had been increases of 300 unemployed and 4,900 employed persons for the year.

Although average weekly earnings of production workers were \$17.54 greater in March 1979 than in the previous March, average weekly hours had also increased over the past year to 40.5 hours and the purchasing power of wages had continued to erode as a result of inflation.

During the first half of 1979, it is expected that employment levels will continue to increase. After that, it is predicted that a slight employment decline will occur. The employers will stabilize their work force levels, with emphasis on replacement hiring. The unemployment rate should increase slightly during this period because there will be too few job openings to absorb additions to the work force. After that period of employment decline, growth is predicted but at a slower rate than in the past two years.

II. Description of Area

A. Definition of Area

As shown on the accompanying map, the Lowell Labor Market Area (LMA) includes the City of Lowell and the seven nearby towns of Billerica, Chelmsford, Dracut, Dunstable, Tewksbury, Tyngsborough and Westford. Encompassing approximately 171.4 square miles, the LMA is located in the northeastern part of Massachusetts within Middlesex County and borders the State of New Hampshire. The area lies largely within the Merrimack River basin. The Merrimack, along with its tributaries, the Concord and the Shawsheen Rivers, form the drainage system for the area. Limited access Routes 3 and 495 provide commercial over-the-road transportation. Route 495 connects with Route 93, a limited access interstate highway. Driving time to Logan International Airport is 45 minutes. The Lowell CETA area covers the same municipalities as does the Lowell LMA.

B. Population and Labor Force Characteristics

Population estimates for Fiscal Year 1976 indicate a population of 223,271 for the Lowell LMA as shown by Table 1. Of the cities and towns that comprise the LMA, all showed an increase in population between the years 1970 to 1976, with the exception of the City of Lowell which declined by 4.6 percent.

According to the Lawrence/Berkeley Projections listed in Table 2, the Lowell LMA population should reach 226,939 by Fiscal Year 1980. The 1980 projected population figure represents a 6.0 percent increase over the 1970 Lowell LMA population of 214,152. The area's labor force participation rate should be 69.1 percent in 1980 and the overall unemployment rate is projected to be 6.5 percent.

Table 3 provides the Lowell LMA population composition for 1980 by sex, age and race as determined by the Lawrence/Berkeley projections.

As time passes since the 1970 Federal census, the reliability of population figures becomes increasingly questionable. Trends that were recorded in the last census may be less accurate today. However, what we can be relatively sure of in reviewing Tables 1, 2, and 3, is that the total population of the Lowell LMA is higher than it was in either 1970 or 1975. Further, with the possible exception of the City of Lowell, the other communities comprising the consortium continue to grow.

LOWELL LABOR AREA



THE COMMONWEALTH OF MASSACHUSETTS
DIVISION OF EMPLOYMENT SECURITY

Table 1
Population Estimates
Of
Lowell LMA

	1976	1970	Change	Percent
TOTAL	223,271	214,152	9,119	4.3
Billerica	36,759	31,648	5,111	16.1
Chelmsford	31,805	31,432	373	1.2
Dracut	20,601	18,214	2,387	13.1
Dunstable	1,623	1,292	331	25.6
Lowell	89,891	94,239	-4,348	- 4.6
Tewksbury	24,163	22,755	1,408	6.2
Tyngsborough	5,120	4,204	916	21.8
Westford	13,309	10,368	2,941	28.4

Source: U. S. Department of Commerce
Bureau of the Census

Table 2
POPULATION AND LABOR FORCE COMPOSITION PROJECTIONS
Fiscal Year 1980
Lawrence/Berkeley Projections
Lowell LMA

	Population	Labor Force	Employ.	Unemploy.	Unemploy. Rate	LFP* Rate
TOTAL	226,939	114,033	106,621	7,412	6.5	69.1
White Male	108,335	64,166	60,079	4,087	6.4	83.1
0-15	31,144	--	--	--	--	--
16-17	5,138	3,791	--	--	--	73.8
18-19	5,138	3,818	--	--	--	74.3
20-24	11,183	9,978	--	--	--	89.2
25-34	14,133	13,850	--	--	--	98.0
35-44	12,175	11,932	--	--	--	98.0
45-64	21,962	19,192	--	--	--	87.4
65 +	7,462	1,605	--	--	--	21.5
White Female	115,930	48,889	45,619	3,270	6.7	56.7
0-15	29,779	--	--	--	--	--
16-17	4,881	4,035	--	--	--	82.7
18-19	4,881	4,168	--	--	--	85.4
20-24	11,676	8,758	--	--	--	75.0
25-34	15,863	8,471	--	--	--	53.4
35-44	13,556	8,653	--	--	--	63.8
45-64	23,285	13,868	--	--	--	59.6
65 +	12,009	936	--	--	--	7.8
Nonwhite Male	1,262	537	493	45	8.4	67.5
0-15	466	--	--	--	--	--
16-17	65	20	--	--	--	30.5
18-19	65	44	--	--	--	67.9
20-24	101	53	--	--	--	52.7
25-34	277	215	--	--	--	77.6
35-44	83	81	--	--	--	98.0
45-64	143	116	--	--	--	81.3
65 +	62	8	--	--	--	12.6
Nonwhite Female	1,412	441	**	**	2.3	49.7
0-15	527	--	--	--	--	--
16-17	50	13	--	--	--	26.8
18-19	50	13	--	--	--	23.9
20-24	125	75	--	--	--	60.0
25-34	267	182	--	--	--	68.1
35-44	140	33	--	--	--	23.8
45-64	161	87	--	--	--	53.9
65 +	92	38	--	--	--	40.7

* Labor Force Participation

** Figures are too small to make adequate projections

Table 3
Lowell LMA Population Composition
Projections for July 1, 1980

Ages	White		Black		All		All		All	
	Males	Females	Total	Males	Females	Total	Males	Other Females	Other Total	Combined Total
TOTAL	108,335	115,930	224,265	879	973	1,852	383	439	822	226,939
0-4	9,279	8,831	18,110	130	127	257	41	40	81	18,448
5-9	8,074	7,689	15,763	105	103	208	49	48	97	16,068
10-14	11,229	10,827	22,056	64	124	188	29	50	79	22,323
15-19	12,844	12,200	25,044	147	118	265	21	11	32	25,341
20-24	11,182	11,675	22,857	83	89	172	27	41	68	23,097
25-29	8,537	8,433	16,970	125	101	226	83	22	105	17,301
30-34	5,595	7,429	13,024	56	87	143	14	57	71	13,238
35-39	6,304	7,233	13,537	6	60	66	14	28	42	13,645
40-44	5,870	6,322	12,192	50	32	82	13	20	33	12,307
45-49	6,347	6,230	12,577	16	39	55	25	36	61	12,693
50-54	5,838	6,171	12,009	25	20	45	9	22	31	12,085
55-59	5,445	5,685	11,130	29	8	37	12	0	12	11,179
60-64	4,330	5,197	9,527	19	23	42	8	14	22	9,591
65-69	3,028	3,694	6,722	12	11	23	13	16	29	6,774
70-74	1,934	3,101	5,035	4	21	25	6	9	15	5,075
75+	2,499	5,213	7,712	8	10	18	19	25	44	7,774

Source: Lawrence/ Berkeley Projections

C. Economic Assumptions for the Lowell LMA

In making an economic forecast for fiscal years 1979 and 1980, it is assumed that the following conditions will prevail:

1. The institutional framework of the United States economy will not change radically.
2. Current social, technological and scientific trends will continue including values placed on work, education, income and leisure.
3. The Massachusetts share of United States business will remain constant.
4. Inflation will remain at a high digit level.
5. The high price of energy will increase the cost of production.
6. Employment levels will stabilize, with emphasis on replacement hiring.
7. The unemployment level will rise as new entrants experience difficulty in being absorbed into the work force.
8. Wage increases for hourly employees and salary increases in small and medium sized businesses will hover around 8.0 percent rather than 7.0 percent.

III. Employment Developments and Outlook

A. By Industry

After the textile mills moved to the South in the 1920's, the Lowell area experienced chronic unemployment for years. More recently, as shown in Table 4, both total annual payroll and average wage increased during the years 1967-1977. Likewise, the number of establishments has increased except in the City of Lowell where there has been an overall decline. In comparing the total annual employment for 1977 with that of 1967, an increase is noted in every community of the Consortium (LMA).

During the period 1970-1978, shown in Table 5, the Lowell LMA nonagricultural wage and salary annual employment increased by 22.1 percent to 68,600. The cutback in defense spending is apparent in the 1971 manufacturing employment figures. Also, the effects of the 1974-1975 recession are reflected particularly in decreased contract construction in employment. In January 1975, the revised unemployment rate was up to 11.4 percent. During January 1975, the economic situation in Lowell dramatically worsened as Honeywell announced it was closing its Lowell plant and layoffs at other firms were reported almost daily. The Massachusetts Division of Employment Security Office in Lowell opened nights and weekends to handle unemployment claims.* By June 1975, the Lowell LMA revised unemployment rate had risen to 13.3 percent and the effects of the recession are noted in the Table 5 employment figures, particularly in contract construction. Following the recession, the growth in the Lowell area has continued to expand.

Table 6 shows increased employment in all industries for December 1977 as compared with the previous January. Average monthly All Subject Employment showed an increase of 5,065 (10 percent) from 49,159 in January 1977 to 54,224 in the following December. The only monthly downturn was in July resulting from decreased employment in manufacturing, transportation, and retail trade.

Of more current interest is the employment data contained in Tables 7 and 8. Table 7 contains January through June 1978 private sector employment for the Lowell LMA as obtained from the ES-202 Report. Compared to the December 1977 employment figures of Table 6, the All Subject Employment totals were lower than in the first quarter 1978 as shown in Table 7, with the largest decrease occurring in February.

* Note: See Section X. References/Sources. Paragraph 6.

Table 8 shows employment in various industrial groups for the Lowell LMA during the second half of 1978 as obtained from the ES-790 Report. During this time frame, the total nonagricultural employment showed a continuing increase, with the total being 70,932 in December *.

The LMA has been experiencing a lengthy economic recovery period. At the beginning of 1979, uncertainty but optimism appears to be the consensus of opinion about the Lowell LMA economy.

One of the reasons for the optimism in the area is the growth in Industry 35, nonelectrical machinery, largely due to expansion by Wang Industries, Inc., which has its headquarters in Lowell. Among the expansion projects being pursued by Wang are: the construction of a 14-story corporate tower in Lowell; an addition to the firm's Tewksbury manufacturing complex; and an option to purchase land in Lowell that will accommodate future additional manufacturing space as required.

The electronics industry has been growing in the area and it may be less vulnerable during a period of economic decline because of the demand for its product. Another major announced project in the industry was Astro Circuit Corporation of Tewksbury. The project consists of building a new 60,000 square foot structure in the Lowell Hale Howard Industrial Park to be completed by the summer of 1979 which could provide perhaps 300 new jobs.*

For the first quarter of calendar year 1979, nonfarm wage and salary employment in the Lowell LMA registered a decrease to 69,100 for both January and February, but rose to 69,700 in March as shown in Table 9. The decreases were mostly of a seasonal nature in contract construction and in wholesale/retail trade industries. Table 10 provides a graphic presentation of the relative sizes of the largest industries in the Lowell LMA for calendar year 1977*.

Although attention has been riveted on the danger of a recession, there appears to be no universal agreement on the timing of the next recession, the peak in interest rates, or the probable performance of industries in such an environment. Some predict that a recession will not drastically affect the LMA economy as did the 1974-1975 recession, largely because banks now have money available, though at costly rates. The economy has been performing more vigorously than expected largely as a result of increased consumer spending motivated by inflation fears. The up-trend in personal income should continue well into 1979 and most observers do not foresee an immediate radical curtailment of consumer eagerness to buy. As a result, retail stores in the area are among those which continue to look forward to early 1979 with optimism.

* Note See Section X. References/Sources. Paragraphs 6 and 7.

In addition to inflation problems, a new crisis is reduced energy supplies, reminiscent of the Arab Oil Embargo of 1973; however at this point in time it appears that the crisis is slowly developing and in the long run should make a permanent but acceptable encroachment on people's lifestyle.

In the commercial area, real estate developer, Gilbert Campbell in November 1978 announced full tenancy of Lowell Place - the former Pollashep Building on Merrimack Street in Lowell. Some \$1 million in renovations of the downtown property was earmarked by Campbell. The complex could bring approximately 200 new jobs to the city. The major firm to rent space is Pilgrim Health Applications, a subsidiary of Arthur D. Little of Boston. Pilgrim, which is expected to move into the complex by mid-1979, should employ about 200 people.

Probably the most significant event in local/federal relations in Lowell was the approval of the Lowell National Historical Park in June 1978 by Congress and the President. Utilizing the city's canals, mills, and buildings, the park will tell the story of the development of the textile industry in this country.

At the end of 1978, Forge Mills, located at 200 Market Street, Lowell, which makes yarn for handknitting and needle craft kits, anticipates that production will triple by the middle of 1979.

Production is expected to increase from 30-40 thousand pounds to 70-100 thousand pounds. The number of employees is expected to increase from 70 to about 110.

Industry 28, chemicals and allied products, has seen growth in New England Nuclear Corporation which has added 46,000 square feet to its space in Billerica with the potential for additional employees.*

Expansion within the Lowell LMA is summarized by a State Executive Office of Economic Affairs Study. The firms which have expanded included:

1. A.O.T.C. Metal Finishing in Billerica, 6,000 square feet, three new employees.
2. Container Services Inc. In Lowell, 14,500 square feet, eleven new employees.
3. Diagnostic Aids Inc., in Billerica, 8,000 square feet, no employee estimate.
4. D.J. Instruments Inc. in North Billerica, 2,800 square feet, eight new employees.

* Note: See Section X References/Sources = Paragraph 6.

5. Dynamic Machine Works Inc. in Billerica, 4,600 square feet, five new employees.
6. Forbes Manufacturing Inc. in Billerica, 500 square feet, three new employees.
7. G & S Systems Inc. in Billerica, 5,700 square feet, 20 new employees.
8. General Coatings in Westford, 2,200 square feet, two new employees.
9. Joan Fabrics in Lowell, 180,000 square feet, 100 new employees.
10. New England Nuclear Corporation in Billerica, 5,000 square feet, no employee estimate.
11. Northeast Offset Inc. in Chelmsford, 6,000 square feet, five new employees.
12. Technical Devices and Research Corporation in Chelmsford, 2,400 square feet, 12 new employees.
13. Telemetry Systems Engineering in Lowell, 4,000 square feet, no employee estimate.
14. U.S.C.I. in Billerica, 105,000 square feet, no employee estimate.
15. Wang Laboratories in Lowell 164,000 square feet, 166 new employees.*

As outlined in the above paragraphs, industrial growth is occurring in the Lowell LMA. It is expected that employment will continue to grow well into 1979 followed by a slight employment decline. After that, employment is predicted to start to grow again but at a slower rate than in the past two years.* The real labor problem will be not enough job openings from growth to absorb additions in the labor force.

* Note: See Section X References/Sources - Paragraphs 2 and 7.

Some economists are now saying there could be a deeper recession in the first half of 1980, but for an overview opinion, it seems that the Lowell LMA has adopted an optimistic wait and see attitude. As compared to other parts of the Nation, the Lowell LMA should be able to withstand a declining economic environment better because of less dependence on construction and automobile industries.

Table 11 contains information on employment levels by industry for 1974 and projected 1985 levels. It is estimated that by 1985, approximately 6,362 new jobs will have been created in the Lowell LMA. Overall gains are expected in the durable goods industries especially in machinery except electrical and in electronic computing equipment. Other notable growth is predicted in retail trade and service industries. Within the services, the greatest gain is anticipated in the medical sector. Among the industries showing a negative net change are agriculture, textile mill products, and leather products. It is important to view these projections in terms of relative magnitude and general tendencies, rather than as actual employment levels. However, use of this data as indicators and relationships can be helpful to those concerned with studying labor demand in the Lowell LMA.

Table 4
Employment and Wages
1967-1977

Year	Total Annual Payroll in 000's \$	Average Annual Wage	Number Establishments	Average Annual Employment					Finance Insurance Real Estate	Services	
				Total Employment	Contract Construction	Manufacturing	Trans. Comm. Utilities	Wholesale and Retail Trade			
BillERICA											
1967	\$13,430.4	\$ 5,332	241	2,519	242	889	92	878	11		403
1968	15,395.5	5,845	239	2,634	242	916	91	963	19		397
1969	22,319.0	6,830	244	3,268	247	1,200	136	1,191	24		465
1970	31,490.0	7,671	265	4,105	278	1,710	151	1,402	29		531
1971	38,821.5	8,213	299	4,727	325	2,038	170	1,473	46		670
1972	46,230.0	8,973	313	5,152	451	2,139	172	1,613	58		709
1973	54,368.7	9,127	348	5,957	459	2,475	220	1,946	67		786
1974	58,853.2	9,557	361	6,158	316	2,841	305	2,096	59		537
1975	70,504.4	10,615	387	6,642	245	3,146	448	2,133	52		618
1976	80,406.9	11,363	396	7,076	283	3,236	492	2,352	58		654
1977	93,092.2	11,820	431	7,876	325	3,648	564	2,495	80		750
Chelmsford											
1967	\$14,778.4	\$ 4,687	279	3,153	349	795	86	1,290	56		470
1968	17,419.3	4,894	302	3,559	377	804	75	1,560	66		570
1969	20,516.0	5,369	313	3,821	410	857	111	1,581	67		701
1970	21,547.7	5,662	336	3,806	421	711	128	1,592	73		795
1971	23,298.4	6,078	344	3,833	421	597	159	1,643	76		840
1972	28,043.2	6,520	375	4,301	566	661	164	1,878	102		839
1973	33,323.9	6,963	408	4,786	629	839	162	1,963	247		847
1974	35,012.6	7,212	409	4,855	486	1,018	175	1,979	255		841
1975	40,052.7	8,019	436	4,995	371	989	199	2,238	250		862
1976	41,176.0	7,928	458	5,194	390	1,036	245	2,244	265		927
1977	45,849.6	8,267	483	5,546	419	1,133	269	2,357	275		995

Table 4

Employment and Wages
1967-1977
(continued)

Year	Total Annual Payroll in 000's \$	Average Annual Wage	Number Estab- lish- ments	Average Annual Employment						
				Total Employment	Contract Construction	Manufacturing	Trans. Comm. Utilities	Wholesale and Retail Trade	Finance Insurance Real Estate	Services
Dracut										
1967	\$ 6,952.5	\$4,752	177	1,463	349	480	73	423	11	119
1968	8,378.0	5,350	182	1,566	394	460	97	456	14	133
1969	8,890.3	5,478	189	1,623	416	413	116	511	12	143
1970	9,751.5	6,164	181	1,582	383	464	126	475	11	110
1971	8,669.4	6,689	180	1,296	411	113	133	510	11	101
1972	8,743.3	6,619	183	1,321	414	114	137	525	10	105
1973	10,330.8	7,052	207	1,465	480	131	143	573	19	100
1974	11,001.4	7,111	232	1,547	446	163	130	643	22	128
1975	10,546.4	7,370	233	1,431	329	156	110	688	26	109
1976	11,541.4	7,804	242	1,479	342	188	115	673	27	124
1977	12,506.0	7,802	252	1,604	372	218	108	744	26	135
Dunstable										
1967	\$ 124.8	\$4,027	12	31	15	0	8	1	0	7
1968	173.4	4,447	14	39	22	0	6	2	0	9
1969	221.5	5,680	14	39	21	0	8	3	0	7
1970	228.5	6,925	13	33	19	0	8	3	0	4
1971	390.9	8,145	14	48	32	0	9	1	0	6
1972	648.1	7,904	15	82	55	0	7	3	0	17
1973	794.7	7,791	16	102	70	0	7	3	0	22
1974	615.8	8,322	15	74	50	0	6	0	0	17
1975	573.6	7,967	17	72	45	1	7	1	1	16
1976	398.7	6,431	17	62	38	2	6	6	0	8
1977	484.7	7,235	19	67	36	2	7	7	0	11

Table 4

Employment and Wages
1967-1977
(continued)

Year	Total Annual Payroll in 000's \$	Average Annual Wage	Number Establish- ments	Average Annual Employment						
				Total Employment	Contract Construction	Manufacturing	Trans. Comm. Utilities	Wholesale and Retail Trade	Finance Insurance Real Estate Services	
Lowell										
1967	\$158,129.5	\$5,447	1,612	29,033	1,008	15,250	984	6,522	1,246	4,002
1968	173,165.1	5,854	1,589	29,583	1,193	15,562	1,028	6,503	1,257	4,022
1969	193,105.9	6,252	1,561	30,888	1,129	16,605	997	6,836	1,294	4,033
1970	196,345.0	6,628	1,543	29,625	1,006	15,698	981	6,861	1,366	3,683
1971	200,895.4	6,952	1,533	28,896	1,251	14,567	971	7,019	1,379	3,606
1972	228,325.4	7,234	1,525	31,563	1,340	14,802	992	6,906	1,413	6,086
1973	242,699.0	7,558	1,522	32,110	1,066	16,052	1,011	6,620	1,465	5,866
1974	244,549.4	8,014	1,482	30,516	889	14,671	1,065	6,426	1,457	5,957
1975	245,353.3	8,669	1,457	28,304	762	12,786	1,374	6,129	1,478	5,746
1976	267,712.5	9,234	1,433	28,991	775	12,820	1,313	6,183	1,451	6,419
1977	284,277.4	9,640	1,419	29,489	854	13,050	1,253	6,492	1,577	6,228
Tewksbury										
1967	\$ 9,237.2	\$5,306	176	1,741	181	768	151	499	13	120
1968	12,250.5	5,437	205	2,253	185	1,106	109	697	13	133
1969	13,807.7	6,099	213	2,264	174	956	102	860	13	150
1970	16,935.5	6,670	215	2,539	166	1,179	97	919	13	154
1971	18,862.8	7,191	219	2,623	172	1,253	112	902	17	140
1972	23,141.7	7,282	223	3,178	225	1,328	128	962	19	488
1973	32,441.4	7,998	236	4,056	255	1,766	134	1,157	43	677
1974	35,355.6	8,764	239	4,034	214	1,862	137	1,332	52	412
1975	36,779.0	9,402	234	3,912	124	1,667	218	1,417	46	438
1976	43,841.0	9,881	249	4,434	146	1,895	268	1,576	46	500
1977	52,760.2	10,704	248	4,929	167	2,341	343	1,612	51	513

Table 4

Employment and Wages
1967-1977
(continued)

Year	Total Annual Payroll in 000's \$	Average Annual Wage	Number Establish- ments	Total Employment	Average Annual Employment				Finance Insurance Real Estate	Services	
					Contract Construction	Manufacturing	Utilities	Trans. Comm.			Wholesale and Retail Trade
Tyngsborough											
1967	\$ 915.7	\$3,999	47	229	21	4		9	122	9	65
1968	903.3	3,980	47	227	21	4		11	120	10	62
1969	993.9	3,794	44	262	20	13		10	134	11	72
1970	1,250.7	4,451	47	281	27	25		4	138	13	73
1971	1,245.9	4,755	48	262	23	28		6	117	15	74
1972	1,544.4	5,097	51	303	53	31		5	122	14	79
1973	3,205.7	4,770	56	672	49	376		0	138	15	92
1974	3,763.4	6,070	57	620	39	327		0	128	14	111
1975	3,881.3	6,919	64	561	39	245		1	138	17	119
1976	5,925.0	7,462	61	794	58	452		2	155	18	109
1977	6,348.1	8,266	65	768	64	401		2	165	18	118
Westford											
1967	\$ 8,452.0	\$6,003	87	1,408	146	970		21	138	1	98
1968	9,423.2	6,363	93	1,481	181	993		25	144	1	112
1969	10,423.0	6,716	94	1,552	191	1,013		32	168	1	120
1970	11,355.8	7,210	99	1,575	186	1,072		38	145	0	108
1971	11,843.6	7,486	105	1,582	220	1,059		10	163	0	107
1972	12,938.1	7,913	101	1,635	238	1,038		40	182	0	116
1973	14,235.5	8,369	117	1,701	219	1,055		50	220	14	126
1974	14,989.5	8,435	130	1,777	185	1,111		50	251	14	146
1975	15,726.8	8,956	140	1,756	160	1,074		44	280	12	165
1976	16,780.9	9,790	145	1,714	159	1,044		35	278	12	172
1977	18,681.7	10,687	160	1,749	163	1,077		22	280	14	179

Table 5
Nonagricultural Wage and Salary Employment
Annual Averages-Lowell IMA
1970-1978
(in 000's)

Industry	1970	1971	1972	1973	1974	1975	1976	1977	1978
Nonagricultural - Total	56.2	56.1	58.9	61.8	61.4	59.4	62.4	65.3	68.6
Manufacturing-Total	20.9	19.7	20.7	22.8	22.0	19.9	20.8	21.9	23.1
Durable Goods-Total	8.8	8.3	8.5	10.0	10.3	9.4	9.3	10.7	12.0
Nondurable Goods-Total	12.1	11.4	12.2	12.8	11.7	10.5	11.5	11.2	11.1
Food	1.3	1.4	1.4	1.5	1.3	1.1	1.1	1.1	1.0
Textiles	3.1	2.9	3.2	3.5	2.9	2.6	3.0	3.0	3.0
Apparel	1.6	1.5	1.6	1.6	1.4	1.0	1.1	1.1	1.0
Printing	2.5	2.4	2.5	2.6	2.5	2.4	2.3	2.4	2.5
Leather	1.9	1.3	1.2	1.2	1.1	1.2	1.4	1.3	1.4
Other Nondurables	1.7	1.9	2.3	2.4	2.5	2.2	2.6	2.3	2.2
Nonmanufacturing-Total	35.3	36.4	38.2	39.0	39.4	39.5	41.6	43.4	45.5
Contract Construction	2.5	2.8	3.2	3.1	2.6	2.1	2.2	2.4	2.4
Transp., Communications and Utilities	2.3	2.4	3.0	2.9	3.0	2.9	3.0	3.0	3.1
Wholesale & Retail Trade	11.5	11.8	12.0	12.5	12.7	13.0	13.5	14.2	15.1
Finance, Insurance and Real Estate	1.5	1.6	1.6	1.9	1.9	1.9	1.9	2.1	2.1
Services, Miscellaneous and Mining	9.3	9.3	9.5	9.5	9.5	9.5	9.9	10.3	10.4
Government	8.2	8.5	8.9	9.1	9.7	10.1	11.1	11.4	12.4

Source: 790 Reports (using 1972 SIC Codes).
 Years 1978, 1977 and 1976 estimates adjusted to benchmark date 1977.
 Year 1975 estimate adjusted to benchmark date 1976.
 Years 1974, 1973, 1972, 1971 and 1970 estimates adjusted to benchmark date 1976.

Table 6
Private Sector Employment by Month
Lowell Labor Market Area
1977

SIC Code	Industries	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	All Subject Employment	49,159	49,444	49,962	51,537	52,161	52,954	51,748	52,294	53,264	53,613	53,958	54,229
01-09	Agriculture	62	53	52	111	117	114	139	139	127	118	106	106
10-14	Mining	43	43	46	67	73	74	77	72	70	69	71	72
15-17	Construction	1,612	1,574	1,727	2,136	2,490	2,705	2,766	2,854	2,898	2,843	2,724	2,466
19-39	Manufacturing	20,891	21,214	21,275	21,680	21,797	22,273	21,340	21,738	21,933	22,578	22,823	22,896
40-49	Transp., Communications and Utilities	2,406	2,440	2,501	2,456	2,441	2,469	2,344	2,391	2,546	2,549	2,527	2,548
50-51	Wholesale Trade	1,974	1,981	2,015	2,032	2,046	2,029	2,020	2,044	2,099	2,031	2,054	2,090
52-59	Retail Trade	11,599	11,526	11,688	12,013	12,110	12,188	12,009	12,021	12,498	12,333	12,539	12,891
60-67	Finance, Insurance and Real Estate	2,024	2,011	2,019	2,020	2,037	2,048	2,061	2,075	2,071	2,040	2,034	2,038
70-89	Services	8,548	8,602	8,639	9,022	9,050	9,054	8,992	8,960	9,022	9,052	9,080	9,122

Source: ES-202 for firms covered by the Commonwealth's Employment Security Law

Table 7
Private Sector Employment By Month
Lowell Labor Market Area
January-June 1978

SIC Code	Industries	January	February*	March	April	May	June
	All Subject Employment	53,458	52,992	53,881	55,038	55,704	56,641
01-09	Agriculture	165	162	159	206	220	224
10-14	Mining	46	46	47	65	74	71
15-17	Construction	2,059	1,905	2,012	2,467	2,717	2,819
19-39	Manufacturing	22,260	22,096	22,435	22,813	22,965	23,361
40-49	Transp. Comm. , & Utilities	2,647	2,644	2,705	2,687	2,677	2,778
50-51	Wholesale Trade	2,011	1,987	2,040	1,964	1,957	2,029
52-59	Retail Trade	12,773	12,720	12,847	12,930	13,113	13,170
60-67	Finance, Ins., Real Estate	2,020	1,992	2,005	2,060	2,087	2,087
70-89	Services	9,477	9,440	9,631	9,846	9,894	10,102

* The 1978 Blizzard

Source: ES-202 for firms covered by the Commonwealth's Employment Security Law.

Table 8
Employment in Various Industrial Groups
Lowell LMA
July-December 1978

Sic CODE	July	Aug.	Sept.	Oct.	Nov.	Dec.
TOTAL	68,283	68,937	69,569	69,644	69,915	70,932
Manufacturing	22,533	23,059	23,368	23,371	23,483	23,975
Durable Goods	11,957	12,072	12,249	12,242	12,420	12,872
24 Lumber, Wood Prod. exc. Furniture	160	149	154	128	136	136
25 Furniture & Fixtures	182	188	184	195	200	197
32 Stone, Clay, Glass & Concrete Prod.	308	311	313	313	304	314
33 Primary Metal Industries	525	514	536	524	542	533
34 Fabricated Metal Products	457	504	524	517	557	578
35 Machinery exc. Electrical	5,464	5,507	5,606	5,620	5,637	6,062
36 Electrical Machinery Equip. & Supplies	1,753	1,791	1,829	1,825	1,924	1,966
37 Transportation Equipment	2,436	2,439	2,447	2,470	2,491	2,468
38 Instruments, Photo & Optical Goods	672	669	656	650	629	618
Nondurable Goods	10,576	10,987	11,119	11,129	11,063	11,103
20 Food & Kindred Products	942	1,057	1,098	1,130	1,134	1,134
22 Textile Mill Products	2,883	2,988	2,991	3,047	2,971	2,969
23 Apparel	974	1,025	1,050	1,025	1,046	1,049
26 Paper & Allied Products	938	990	1,000	1,011	1,024	1,042
27 Printing, Publishing & Allied Products	2,456	2,405	2,454	2,481	2,443	2,467
28/29 Chemical & Petroleum Products	444	457	454	418	430	427
30 Rubber & Plastic Products	704	689	690	689	690	677
31 Leather & Leather Products	1,222	1,364	1,370	1,317	1,314	1,327
39 Miscellaneous Manufacturing	13	12	12	11	11	11
Nonmanufacturing	45,750	45,878	46,201	46,273	46,432	46,597
15-17 Contract Construction	2,820	2,898	2,904	2,704	2,523	2,263
40-49 Transportation & Public Utilities	2,944	2,982	3,141	3,130	3,116	3,125
50-59 Wholesale & Retail Trade	14,974	14,996	15,317	15,205	15,367	15,582
60-66 Finance, Insurance & Real Estate	2,089	2,105	2,107	2,071	2,067	2,064
(70-89-99) Service, Miscellaneous & Mining	10,546	10,557	10,356	10,346	10,371	10,426
(91-93) Government - Total	12,377	12,340	12,376	12,817	12,988	13,137

Source: 790 Report

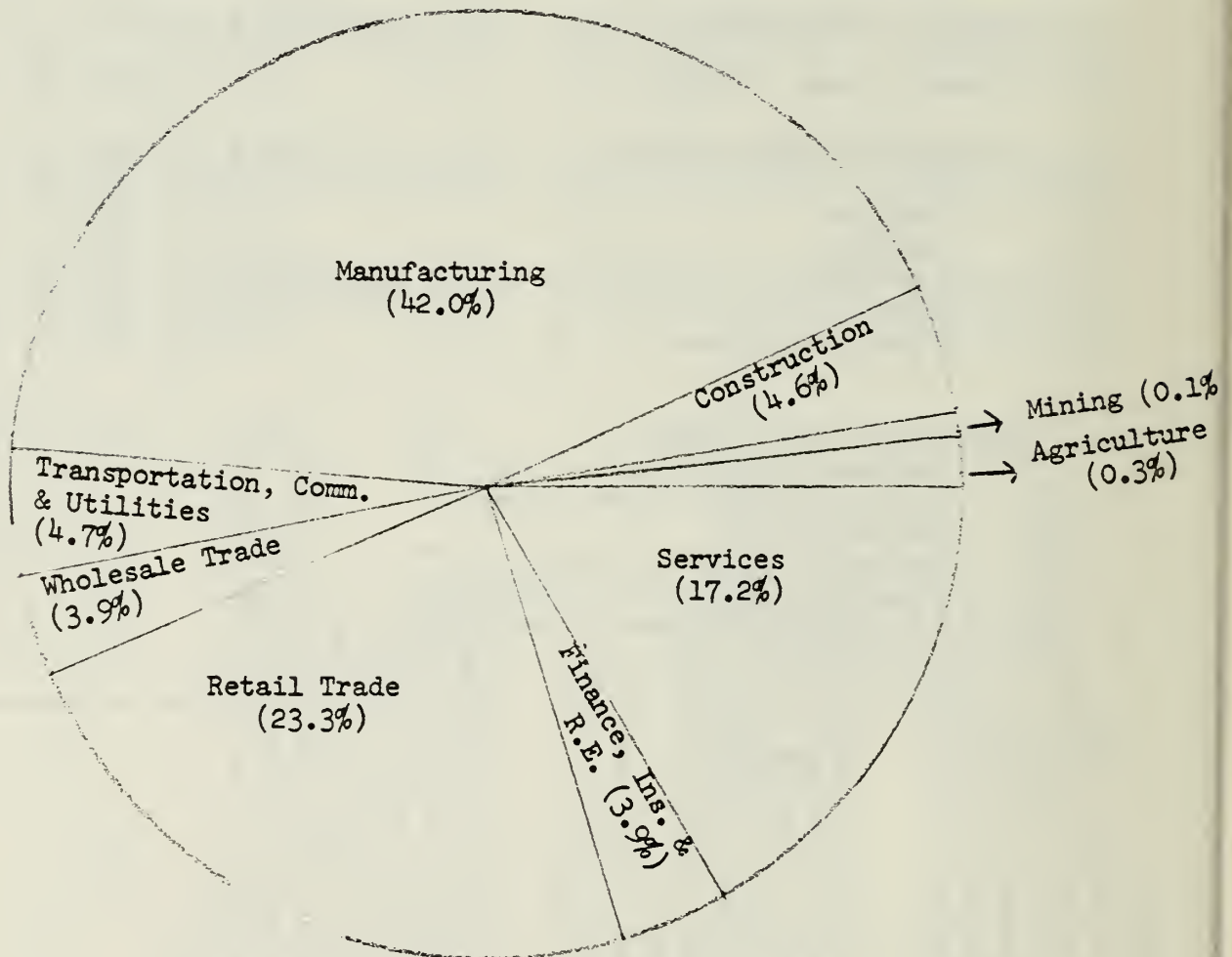
Table 9
Nonagricultural Wage and Salary Employment
Lowell LMA
1979 (in 000's)

Industry	January 1979	February 1979	March 1979
Nonagricultural - Total	69.1	69.1	69.7
Manufacturing - Total	24.0	24.1	24.2
Durable Goods - Total	12.9	13.2	13.4
Nondurable Goods - Total	11.1	10.9	10.8
Food	1.1	1.1	1.1
Textiles	3.0	3.0	2.9
Apparel	1.0	1.0	1.0
Printing	2.5	2.5	2.5
Leather	1.3	1.3	1.3
Other Nondurables	2.2	2.0	2.0
Nonmanufacturing - Total	45.1	45.0	45.5
Contract Construction	1.8	1.7	1.9
Transportation, Communications and Utilities	3.0	3.1	3.1
Wholesale and Retail Trade	15.0	14.9	15.2
Finance, Insurance and Real Estate	2.1	2.1	2.1
Services, Miscellaneous and Mining	10.1	10.1	10.1
Government	13.1	13.1	13.1

Source: 790 Report

Table 10

Largest Industries in Terms of Employment
Lowell LMA
1977



Source: ES-202 (1977), for firms covered by the Commonwealth's Employment Security Law.

Table 11

TOTAL EMPLOYMENT BY INDUSTRY ADJUSTED FOR CLASS OF WORKER
LOWELL LABOR MARKET AREA
MASSACHUSETTS

INDUSTRY TITLE	EMPLOYMENT			NET CHANGE	
	1970	1974	1985	1970-1974	1974-1985
TOTAL, ALL INDUSTRIES	63,485	67,029	73,391	3,544	6,362
AGRICULTURE, FORESTRY, & FISHERIES	806	906	785	100	-121
Agriculture	793	892	773	99	-119
Agriculture Production	605	634	455	29	-179
Agriculture Services, Except Horticultural	74	112	141	38	29
Horticultural Services	114	146	177	32	31
Forestry	*	*	*	*	*
Fisheries	*	*	*	*	*
MINING	87	82	77	-5	-5
Metal Mining	*	*	*	*	*
Coal Mining	*	*	*	*	*
Crude Petroleum & Natural Gas Extraction	0	0	0	0	0
Nonmetallic Mining, & Quarrying, except Fuel	85	80	75	-5	-5
CONSTRUCTION	3,848	4,194	4,823	346	629
General Building Contractors	881	795	997	-86	202
General Contractors, Except Building	885	1,005	1,115	120	110
Special Trade Contractors	2,082	2,394	2,711	312	317
MANUFACTURING	22,718	22,564	23,159	-154	595
Durable Goods	10,174	10,309	12,273	635	1,464
Ordnance	3,127	1,798	2,074	-1,329	276
Lumber & Wood Products, Except Furniture	38	39	36	1	-3
Logging	0	0	0	0	0
Sawmills, Planing Mills, & Mill Work	26	13	11	-13	-2
Miscellaneous Wood Products	12	26	25	14	-1
Furniture & Fixtures	379	562	551	183	-11
Stone, Clay & Glass Products	610	667	743	57	76
Glass & Glass Products	*	*	*	*	*
Cement, Concrete, Gypsum, & Plaster Products	25	29	48	4	19
Structural Clay Products	*	*	*	*	*
Pottery & Related Products	5	62	85	57	23
Miscellaneous Nonmetallic Mineral & Stone Products	577	574	608	-3	34
Primary Metal Production	556	575	532	19	-43
Blast Furnaces, Steel Works, Rolling & Fin. Mills	45	42	30	-3	-12
Other Primary Iron & Steel Industries	248	282	260	34	-22
Primary Aluminum Industries	53	44	36	-9	-8
Other Primary Nonferrous Industries	210	207	206	-3	-1
Fabricated Metal Products	474	592	737	118	145
Cutlery, Hand Tools, & Other Hardware	*	*	*	*	*
Fabricated Structural Metal Products	297	340	435	43	95
Screw Machine Products	*	*	*	*	*
Metal Stamping	0	49	48	49	-1
Misc. Fabricated Metal Products	165	193	243	28	50
Machinery, Except Electrical	2,869	4,053	4,943	1,184	890
Engines & Turbines	0	0	0	0	0
Farm Machinery & Equipment	*	*	*	*	*
Construction & Material Handling Machines	0	0	0	0	0
Metalworking Machinery	305	368	380	63	12
Office & Accounting Machines	256	374	393	118	19
Electronic Computing Equipment	2,028	2,752	3,576	724	824
Machinery, Except Electrical, N.E.C.	279	558	593	279	35

Table 11 (continued)

LOWELL MA

INDUSTRY TITLE	EMPLOYMENT			NET CHANGE	
	1970	1974	1985	1970-1974	1974-1985
Electrical Machinery, Equipment & Supplies	1,412	1,683	1,757	271	74
Household Appliances	65	0	0	-65	0
Radio, TV, & Communication Equipment	578	367	347	-211	-20
Electrical Machinery, Equip. & Supplies, N.E.C.	769	1,316	1,410	547	94
Transportation Equipment	232	233	249	1	16
Motor Vehicles & Motor Vehicle Equipment	6	35	38	29	3
Aircraft & Parts	0	0	0	0	0
Ship & Boat Building & Repairing	226	198	211	-28	13
Railroad Locomotives & Equipment	0	0	0	0	0
Mobile Dwellings & Campers	0	0	0	0	0
Cycles & Misc. Transportation Equipment	0	0	0	0	0
Prof., Scientific Instr., Photo. Equip. & Watches	420	564	608	144	44
Scientific & Controlling Instruments	0	21	29	21	8
Optical & Health Services Supplies	400	525	555	125	30
Photographic Equipment & Supplies	20	18	24	-2	6
Watches, Clocks, & Clockwork Operated Devices	0	0	0	0	0
Miscellaneous Manufacturing Industries	57	43	43	-14	0
NONDURABLE GOODS	12,544	11,755	10,886	-789	-869
Food & Kindred Products	1,340	1,277	1,175	-63	-102
Meat Products	*	*	*	*	*
Dairy Products	137	107	67	-30	-40
Canning & Preserving	270	337	345	67	8
Grain Mill Products	*	*	*	*	*
Bakery Products	356	165	112	-191	-53
Confectionary & Related Products	16	14	7	-2	-7
Beverage Industries	91	80	60	-11	-20
Misc. Food Preparation & Kindred Products	462	564	575	102	11
Tobacco Manufacturing	0	0	0	0	0
Textile Mill Products	3,121	3,012	2,521	-109	-491
Knitting Mills	562	489	290	-73	-199
Dyeing & Finishing Textiles, Exc. Wool & Knit Goods	528	91	96	-437	5
Floor Coverings, Except Hard Surfaces	177	44	39	-133	-5
Yarn, Thread, & Fabric Mills	1,042	1,195	1,036	153	-159
Misc. Textile Mill Products	812	1,193	1,060	381	-133
Apparel & Other Fabricated Textile Products	1,569	1,391	1,234	-178	-157
Apparel & Accessories	1,549	1,360	1,210	-189	-150
Misc. Fabricated Textile Products	20	31	24	11	-7
Paper & Allied Products	1,013	995	970	-18	-25
Pulp, Paper, & Paperboard Mills	87	74	67	-13	-7
Paperboard Containers & Boxes	741	735	722	-6	-13
Misc. Paper & Pulp Products	185	186	181	1	-5
Printing, Publishing, & Allied Products	2,606	2,526	2,639	-80	113
Newspaper Publishing & Printing	346	437	483	91	46
Printing, Publishing, & Allied Prod., Exc. Newspapers	2,260	2,089	2,156	-171	67
Chemicals & Allied Products	433	608	658	175	50
Industrial Chemicals	83	139	168	56	29
Plastics, Synthetics & Resins, Except Fibers	157	138	139	-19	1
Synthetic Fibers	*	*	*	*	*
Drugs & Medicines	18	18	24	0	6
Soaps & Cosmetics	9	78	77	69	-1
Paints, Varnishes, & Related Products	0	0	0	0	0
Agricultural Chemicals	0	0	0	0	0
Miscellaneous Chemicals	161	226	240	65	14
Petroleum & Coal Products	*	*	*	*	*
Petroleum Refining	0	0	0	0	0
Misc. Petroleum & Coal Products	*	*	*	*	*
Rubber & Misc. Plastic Products	562	709	804	147	95
Rubber Products	18	19	10	1	-9
Misc. Plastic Products	544	690	794	146	104

Table 11 (continued)

1982 LRA

INDUSTRY TITLE	EMPLOYMENT			NET CHANGE	
	1970	1974	1985	1970-1974	1974-1985
Leather & Leather Products	1,894	1,231	875	-663	-356
Tanned, Curried, & Finished Leather	0	0	0	0	0
Footwear, Except Rubber	1,879	1,222	870	-657	-352
Leather Products, Except Footwear	*	*	*	*	*
TRANSPORTATION, COMMUNICATIONS & OTHER PUBLIC UTIL.	3,226	3,260	3,348	34	88
Transportation, Total	1,738	1,959	1,986	221	27
Railroads, & Railway Express Services	614	514	404	-100	-110
Local, Interurban Transit	512	699	716	187	17
Street Railways, Bus Line	324	475	504	151	29
Taxicab Service	188	224	212	36	-12
Trucking & Warehousing	568	695	810	127	115
Trucking Service	509	663	761	154	98
Warehousing & Storage	59	32	49	-27	17
Water Transportation	0	0	0	0	0
Air Transportation	9	11	14	2	3
Pipelines	0	0	0	0	0
Transportation Services	29	40	42	11	2
Communications, Utilities, & Sanitary Services	1,488	1,301	1,362	-187	61
Communications	821	590	566	-231	-24
Telephone (Wire & Radio)	784	526	491	-258	-35
Telegraph (Misc. Communications Service)	0	13	9	13	-4
Radio Broadcasting, TV	37	51	66	14	15
Utilities & Sanitary Services	667	711	796	44	85
Electric Light & Power	230	207	210	-23	3
Electric-gas Utilities	*	*	*	*	*
Gas & Steam Supply Systems	260	291	330	31	39
Water Supply	66	72	81	6	9
Sanitary Services	108	138	171	30	33
Other Utilities, N.E.C.	0	0	0	0	0
WHOLESALE & RETAIL TRADE	12,734	14,294	15,872	1,560	1,578
Wholesale Trade	1,429	1,909	2,153	480	246
Wholesale, Except Misc. Wholesale	809	905	1,030	96	125
Motor Vehicles & Equipment	154	132	212	28	30
Drugs, Chemicals, & Allied Products	26	47	56	21	9
Dry Goods & Apparel	53	46	52	-7	6
Food & Related Products	208	162	140	-46	-22
Farm Products - Raw Materials	*	*	*	*	*
Electrical Goods	100	110	133	10	23
Hardware, Plumbing	39	77	86	38	9
Machinery Equipment Supplies	223	281	351	58	70
Miscellaneous Wholesale Trade	620	1,004	1,125	384	121
Metals & Minerals, N.E.C.	63	98	109	35	11
Petroleum Products	61	104	116	43	12
Scrap & Waste Material	75	136	156	61	20
Alcoholic Beverages	45	77	87	32	10
Paper & Paper Products	80	121	135	41	14
Lumber & Construction Materials	63	100	113	37	13
Wholesale, N.E.C.	233	368	409	135	41
RETAIL TRADE	11,305	12,385	13,717	1,080	1,332
Building Materials	783	523	575	-260	52
Lumber, Building Material	400	388	421	-12	33
Hardware & Farm Equipment	383	135	154	-248	19
General Merchandise, Total	2,407	2,186	2,388	-221	202
Department, Mail Order	1,582	1,405	1,492	-177	87
Limited Price Stores	344	440	476	96	36
Vending Machine Operators	*	*	*	*	*
Direct Selling	264	271	334	7	63
Misc. Merchandise Stores	211	65	75	-146	10

Table 11 (continued)

LOWELL LMA

INDUSTRY TITLE	EMPLOYMENT			NET CHANGE	
	1970	1974	1985	1970-1974	1974-1985
Food & Dairy Stores	2,217	2,969	3,317	752	348
Grocery Stores	1,834	2,639	2,954	805	315
Dairy Product Stores	73	53	72	-20	19
Retail Bakeries	227	201	177	-26	-24
Food Stores, N.E.C.	83	76	114	-7	38
Auto Dealers, Gas Stations	1,395	1,435	1,725	40	290
Motor Vehicle Dealers	541	540	699	-1	159
Tire, Battery, Accessory	26	67	75	41	8
Gasoline Service Stations	807	795	911	-12	116
Miscellaneous Vehicle Dealers	21	33	40	12	7
Apparel & Accessories	465	593	600	128	7
Apparel, Accessories Stores	395	507	508	112	1
Shoe Stores	70	86	92	16	6
Furniture & Appliances	388	439	474	51	35
Home Furnishing Stores	256	281	280	25	-1
Appliance, TV, Radio Stores	132	158	194	26	36
Eating & Drinking Places	2,085	2,620	2,897	535	277
Misc. Retail Trade Stores	1,565	1,620	1,741	55	121
Drug Stores	437	403	397	-34	-6
Liquor Stores	248	247	265	-1	18
Farm, Garden Supply Stores	52	93	90	41	-3
Jewelry Stores	113	73	83	-40	10
Fuel & Ice Dealers	231	235	180	4	-55
Retail Florists	74	80	80	6	0
Misc. Retail Trade Stores	410	489	646	79	157
FINANCE, INSURANCE, & REAL ESTATE	1,670	2,050	2,414	380	364
Finance, Total	664	885	1,074	221	189
Banking	579	792	971	213	179
Credit Agencies	67	46	56	-21	10
Stock Brokers, Investment	18	47	47	29	0
Insurance	490	609	762	119	153
Real Estate, RE Law Insurance	516	556	578	40	22
SERVICES, TOTAL	15,648	16,696	19,671	1,048	2,975
Hotels & Lodging Places	152	117	132	-35	15
Hotels & Motels	128	85	96	-43	11
Lodging Places, Except Hotels	24	32	36	8	4
Other Personal Services	1,566	1,364	1,246	-202	-118
Laundry, Cleaning	811	485	362	-326	-123
Beauty Shops	404	412	460	8	48
Barber Shops	159	165	119	6	-46
Shoe Repair Shops	22	26	10	4	-16
Dressmaking Shops	37	55	51	18	-4
Other Personal Services	133	221	244	88	23
Miscellaneous Business Services	959	830	971	-129	141
Advertising	*	*	*	*	*
Business Management Services	84	47	54	-37	7
Commercial R. & D.	315	247	290	-68	43
Computer Programming	60	31	46	-29	15
Detective & Protective	52	29	36	-23	7
Employment, Temporary Help	72	36	46	-36	10
Services, Buildings	113	95	110	-18	15
Other Misc. Business Services	256	342	384	86	42
Automobile Repair Services	361	401	537	40	136
Auto Repair	247	280	394	33	114
Auto Services, Except Repair	114	121	143	7	22
Other Repair Services	300	319	395	19	76
Electrical Repair Shops	117	123	136	6	13
Other Repair Services	183	196	259	13	63

Table 11 (continued)

LWELL LMA

INDUSTRY TITLE	EMPLOYMENT			NET CHANGE	
	1970	1974	1985	1970-1974	1974-1985
Motion Pictures, Theatres	61	41	50	-20	9
Miscellaneous Entertainment	253	321	342	68	21
Bowling Alleys, Billiards	65	73	61	-8	-12
Miscellaneous Entertainment	188	248	281	60	33
Medical, Other Health	5,858	6,238	7,904	380	1,666
Offices of Physicians	314	379	549	65	170
Offices of Dentists	266	358	492	92	134
Offices of Chiropractors	0	0	0	0	0
Hospitals	3,689	3,919	4,700	230	781
Convalescent Institutions	1,044	1,043	1,438	-1	395
Health Practitioners, N.E.C.	112	104	143	-8	39
Health Services, N.E.C.	427	435	582	8	147
Legal Services	348	372	400	24	28
Educational Services	3,965	4,777	5,686	812	909
Elementary, Secondary	3,050	3,768	4,398	718	630
College & Universities	722	803	1,055	81	252
Libraries	104	126	147	22	21
Educational Services, N.E.C.	89	80	86	-9	6
Museums, Art Galleries, Zoos	60	60	71	0	11
Nonprofit Organizations	884	925	1,025	41	100
Religious Organizations	299	309	346	10	37
Welfare Services	330	351	389	21	38
Residential Welfare	32	34	40	2	6
Nonprofit Membership	223	231	250	8	19
Private Households	441	349	270	-92	-79
Other Professional Related Services	440	582	642	142	60
Engineering & Architectural Services	161	137	135	-24	-2
Accounting, Auditing	157	313	346	156	33
Misc. Professional Services	122	132	161	10	29
GOVERNMENT, TOTAL ^{1/}	2,748	2,983	3,242	235	259
Federal Public Admin.	600	634	622	34	-12
Postal Service	450	494	472	44	-22
Federal Public Admin.	150	140	150	-10	10
State Public Admin.	568	616	681	48	65
Local Public Admin.	1,580	1,733	1,939	153	206

^{1/} Government workers involved in activities unique to government are classified in the public administrative industry. Government workers in agencies engaged in activities also carried on by private industry such as shipbuilding, education, and medical services, are classified in the appropriate industry category.

Employment figures suppressed for industries with less than 10 employees for all three time periods.

B. By Occupation

Long range trends by occupation for the Lowell LMA appear in Table 12, which contains both 1974 employment levels and 1985 projected levels with annual average demand through the eleven year period. The total projected occupational labor demand during the 1974-1985 span of years is based on both the demand arising from industry growth and replacement needs expected as a result of death, retirement, or other separations from the labor force.

Total employment in the LMA is projected to increase by 37,455 between 1974 and 1985 if economic trends continue. Especially significant within the occupational listing is the anticipated increase of 221 electrical engineers over the period with 60.2 percent of that total demand being due to growth. Within the medical field it is noted that the total demand for 470 registered nurses is due to separations rather than growth. Likewise, teachers show no gain due to growth with total demand due to separations. Growth will be especially strong in the computer specialist field with a requirement for both computer programmers and systems analysts. Declining occupations include farmers, farm workers, guards, barbers, and shoe making machine operatives. Within the clerical field, a requirement for 3,638 stenographers, typists and secretaries is anticipated and miscellaneous clerical occupations are also forecast to have a high demand over the period.

Table 12
TOTAL NUMBER OF JOB OPENINGS, BY OCCUPATION
DURING 1974 - 1985 PERIOD
MASSACHUSETTS
LOWELL LABOR MARKET AREA

O C C U P A T I O N S	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974-1985		
			Total Demand	Due to Growth	Due to Separations
TOTAL, ALL OCCUPATIONS	67,101	73,407	37,455	6,306	31,149
Professional, Technical, Kindred	9,913	10,482	4,702	569	4,133
Engineers, Technical	1,576	1,792	502	216	286
Engineers, Aero-Astronautical	32	27	-5	-5	0
Engineers, Chemical	30	28	-2	-2	0
Engineers, Civil	108	112	37	4	33
Engineers, Electrical	628	761	221	133	88
Engineers, Industrial	276	315	94	39	55
Engineers, Mechanical	203	247	38	44	44
Engineers, Metallurgical	30	24	5	-6	11
Engineers, Mining	0	0	0	0	0
Engineers, Petroleum	0	0	0	0	0
Engineers, Sales	60	57	8	-3	11
Engineers, Other	209	221	56	12	44
Life & Physical Scientists	187	164	32	-23	55
Agricultural Scientists	14	8	5	-6	11
Atmospheric, Space Scientists	*	*	*	*	*
Biological Scientists	*	*	*	*	*
Chemists	129	141	56	12	44
Geologists	*	*	*	*	*
Marine Scientists	0	0	0	0	0
Physicists & Astronomers	30	19	-11	-11	0
Life, Physical Scientists, N.E.C.	0	0	0	0	0
Mathematical Specialists	0	0	0	0	0
Actuaries	0	0	0	0	0
Mathematicians	*	*	*	*	*
Statisticians	*	*	*	*	*
Engineers, Science Technicians	1,396	1,875	776	479	297
Agricultural & Biological Technicians, Except Health	17	24	18	7	11
Chemical Technicians	78	110	54	32	22
Drafters	331	399	123	68	55
Electrical & Electronic Technicians	534	792	346	258	88
Industrial Engineering Technicians	15	22	7	7	0
Mathematical Technicians	*	*	*	*	*
Mechanical Engineering Technicians	37	56	30	19	11
Surveyors	60	72	23	12	11
Engineering, Science Technicians, N.E.C.	323	398	174	75	99
Medical Workers, Except Technicians	1,274	1,102	686	-172	358
Chiropractors	0	0	0	0	0
Dentists	39	55	38	16	22
Dietitians	17	8	2	-9	11
Optometrists	8	13	5	5	0
Pharmacists	94	95	45	1	44
Physicians, M. D. Osteopaths	116	115	54	-1	55
Podiatrists	16	19	14	3	11
Registered Nurses	906	716	470	-190	660
Therapists	72	71	54	-1	55
Veterinarians	*	*	*	*	*
Other Medical & Health Workers	0	0	0	0	0

Table 12 (continued)

LOWELL LMA

OCCUPATIONS	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974-1985		
			Total Demand	Due to Growth	Due to Separations
Health Technologists & Technicians	335	305	234	-30	264
Clinical Lab. Technologists & Technicians	145	101	55	-44	99
Dental Hygienists	18	46	61	28	33
Health Record Technologists & Technicians	21	19	20	-2	22
Radiological Technologists & Technicians	76	55	34	-21	55
Therapy Assistants	*	*	*	*	*
Other Health Technologists & Technicians	72	78	50	6	44
Technicians, Except Health	125	143	40	18	22
Airplane Pilots	17	21	4	4	0
Air Traffic Controllers	29	3	-15	-26	11
Embalmers	17	20	3	3	0
Flight Engineers	0	0	0	0	0
Radio Operators	11	14	3	3	0
Tool Programmers, Numerical	16	21	5	5	0
Other Technicians, Except Health	35	64	40	29	11
Computer Specialists	384	503	218	119	99
Computer Programmers	228	284	133	56	77
Computer Systems Analysts	135	190	77	55	22
Other Computer Specialists	21	29	8	8	0
Social Scientists	116	137	51	21	30
Economists	93	117	46	24	22
Political Scientists	0	0	0	0	0
Psychologists	14	8	-6	-6	0
Sociologists	0	0	0	0	0
Urban & Regional Planners	9	14	5	5	0
Other Social Scientists	0	0	0	0	0
Teachers	1,981	1,866	1,007	-115	1,122
Adult Education Teachers	25	30	16	5	11
College & University Teachers	150	45	-61	-105	44
Elementary School Teachers	845	902	662	57	605
Preschool & Kindergarten Teachers	119	128	86	9	77
Secondary School Teachers	708	617	206	-91	297
Teachers, N.E.C., Except Colleges & Universities	134	144	98	10	88
Writers, Artists, & Entertainers	570	679	340	109	231
Actors	*	*	*	*	*
Athletes & Kindred Workers	26	38	23	12	11
Authors	49	38	0	-11	11
Dancers	0	0	0	0	0
Designers	148	161	57	13	44
Editors & Reporters	98	132	89	34	55
Musicians & Composers	40	53	35	13	22
Painters & Sculptors	70	81	44	11	33
Photographers	37	41	15	4	11
Public Relations Specialist	33	35	13	2	11
Radio & TV Announcers	13	15	2	2	0
Writers, Artists, & Entertainers, N.E.C.	51	87	58	36	22
Other Professional & Technical	1,969	1,916	805	-53	858
Accountants	931	792	224	-139	363
Architects	24	24	11	0	11
Archivists & Curators	*	*	*	*	*
Clergy	117	137	75	20	55
Religious, Except Clergy	13	16	14	3	11
Farm Management Advisors	*	*	*	*	*

Table 12 (continued)

LOWELL LMA

OCCUPATIONS	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974-1985		
			Total Demand	Due to Growth	Due to Separations
Foresters & Conservationists	*	*	*	*	*
Home Management Advisors	0	0	0	0	0
Judges	*	*	*	*	*
Lawyers	134	129	61	-5	66
Librarians	63	56	37	-7	44
Operations, Systems Research	118	182	86	64	22
Personnel Labor Relations	203	206	80	3	77
Research Workers, N.E.C.	66	51	18	-15	33
Recreation Workers	36	44	30	3	22
Social Workers	161	151	89	-10	99
Vocational, Education Counselors	81	104	67	23	44
Managers, Officials, & Proprietors	6,564	7,334	3,289	770	2,519
Buyers, Sales, & Loan Managers	1,129	1,474	763	345	413
Bank, Financial Managers	277	364	197	87	110
Credit Managers	43	52	31	9	22
Buyers, Shippers, Farm Products	*	*	*	*	*
Buyers, Wholesale, Retail	107	148	96	41	55
Purchasing Agents, Buyers, N.E.C.	180	237	123	57	66
Sales Manager, Retail Trade	291	376	184	85	99
Sales Manager, Except Retail Trade	225	291	121	66	55
Administrators, Public Inspectors	571	398	102	-173	275
Assessors, Controllers, Local Public Administration	*	*	*	*	*
Construction Inspectors, Public Administration	0	0	0	0	0
Health Administrators	90	75	40	-15	55
Inspectors, Except Construction, Public Admin.	89	33	-23	-56	33
Officials & Administrators, Public Admin.	199	53	-58	-146	88
Postmasters & Mail Superintendents	15	12	8	-3	11
School Administrators, College	51	69	40	13	22
School Administrators, Elementary & Secondary	119	152	88	33	55
Other Managers, Officials, & Proprietors	4,864	5,462	2,424	598	1,826
Funeral Directors	35	35	22	0	22
Managers, Superintendents, Building	73	93	64	20	44
Office Managers, N.E.C.	273	333	192	60	132
Officers, Pilots, Purser, Ship	*	*	*	*	*
Officials of Lodges, Unions	56	58	24	2	22
Railroad Conductors	23	28	16	5	11
Restaurant, Cafe & Bar Managers	347	343	117	-4	121
Other Managers & Administrators, N.E.C.	4,054	4,562	1,982	508	1,474
Sales Workers	3,267	3,809	2,170	542	1,628
Advertising Agents, Sales Workers	39	54	37	15	22
Auctioneers	0	0	0	0	0
Demonstrators	45	60	48	15	33
Hucksters & Peddlers	81	98	61	17	44
Insurance Agents, Brokers, etc.	279	357	188	78	110
Newspaper Carriers & Vendors	32	29	8	-3	11
Real Estate Agents, Brokers	113	122	75	9	66
Stock & Bond Sales Agents	75	73	31	-2	33
Sales & Sales Workers, N.E.C.	2,603	3,016	1,722	413	1,309

Table 12 (continued)

LOWELL LMA

O C C U P A T I O N S	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974-1985		
			Total Demand	Due to Growth	Due to Separations
Clerical Workers	11,672	13,251	9,851	1,579	8,272
Stenographers, Typists & Secretaries	3,237	3,795	3,638	558	3,080
Secretaries, Legal	123	166	175	43	132
Secretaries, Medical	88	98	98	10	88
Secretaries, Other	2,068	2,540	2,507	472	2,035
Stenographers	58	28	3	-30	33
Typists	900	963	855	63	792
Office Machine Operators	758	701	328	-57	385
Bookkeeping, Billing Operators	19	12	4	-7	11
Calculating Machine Operators	21	17	7	-4	11
Computer, Peripheral Equipment Operators	253	314	127	61	66
Duplicating Machine Operators	23	27	15	4	11
Keypunch Operators	345	226	101	-119	220
Tabulating Machine Operators	*	*	*	*	*
Other Office Machine Operators	95	106	66	11	55
Other Clerical Workers	7,677	8,755	5,885	1,078	4,807
Bank Tellers	249	302	240	53	187
Billing Clerks	92	127	112	35	77
Bookkeepers	1,088	1,121	814	33	781
Cashiers	1,178	1,301	981	123	858
Clerical Assistants, Social Welfare	0	0	0	0	0
Clerical Supervisors, N.E.C.	124	83	25	-41	66
Collectors, Bill & Account	33	37	15	4	11
Counter Clerks, Except Food	129	154	113	25	88
Dispatchers, Starters, Vehicle	54	71	39	17	22
Enumerators & Interviewers	*	*	*	*	*
Estimators, Investigators, N.E.C.	259	268	152	9	143
Expeditors, Production Controllers	288	379	201	91	110
File Clerks	204	178	139	-26	165
Insurance Adjusters & Examiners	99	129	74	30	44
Library Attendants & Assistants	68	68	55	0	55
Mail Carriers, Post Office	265	262	52	-3	55
Mail Handlers, Except Post Office	81	78	41	-3	44
Messengers & Office Helpers	29	24	17	-5	22
Meter Readers, Utilities	29	28	-1	-1	0
Payroll, Time Keeping Clerks	195	207	155	12	143
Postal Clerks	202	199	63	-3	66
Proofreaders	62	83	76	21	55
Real Estate Appraisers	22	22	11	0	11
Receptionist	207	209	200	2	198
Shipping, Receiving Clerks	584	661	253	77	176
Statistical Clerks	172	170	119	-2	121
Stock Clerks, Storekeepers	486	545	246	59	187
Teachers' Aides, Except Monitors	119	214	172	95	77
Telegraph Messengers	0	0	0	0	0
Telegraph Operators	*	*	*	*	*
Telephone Operators	256	203	229	53	176
Ticket Station & Express Agents	21	15	5	-6	11
Weighers	15	15	11	0	11
Miscellaneous Clerical Workers, N.E.C.	1,054	1,616	1,409	562	847

Table 12 (continued)

LOWELL LMA

OCCUPATIONS	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974-1985		
			Total Demand	Due to Growth	Due to Separations
Craft & Kindred Workers	9,977	11,438	4,057	1,461	2,596
Construction Crafts Workers	2,660	3,253	1,264	593	671
Carpenters & Apprentices	896	1,094	462	198	264
Brick & Stonemasons & Apprentices	125	152	49	27	22
Bulldozer Operators	51	73	33	22	11
Cement & Concrete Finishers	63	84	32	21	11
Electricians & Apprentices	553	692	260	139	121
Excavating, Grading & Machine Operators	155	215	82	60	22
Floor Layers, Except Tile Setters	*	*	*	*	*
Painters & Apprentices	331	333	101	2	99
Paperhangers	25	31	17	6	11
Plasterers & Apprentices	31	29	9	-2	11
Plumbers, Pipefitters & Apprentices	285	365	157	80	77
Roofers & Slaters	64	38	35	24	11
Structural Metal Craft Workers	54	71	28	17	11
Tilesetters	23	22	-1	-1	0
Blue-Collar Worker Supervisors, N.E.C.	1,409	1,604	624	195	429
Metalworking Craft Workers, Except Mechanics	941	986	265	45	220
Blacksmiths	*	*	*	*	*
Boilermakers	20	30	21	10	11
Heat Treaters, Annealers, & Temperers	25	17	3	-8	11
Forge & Hammer Operators	*	*	*	*	*
Job & Die Setters, Metal	12	15	3	3	0
Machinists & Apprentices	489	502	123	13	110
Millwrights	49	56	13	7	11
Molders & Apprentices, Metal	63	63	11	0	11
Pattern & Model Makers	39	21	-7	-18	11
Rollers & Finishers, Metal	*	*	*	*	*
Sheetmetal Workers & Apprentices	165	197	65	32	33
Tool & Die Makers & Apprentices	67	73	17	6	11
Mechanics, Repairers, & Installers	2,806	3,482	1,292	676	616
Air Cond., Heating, & Refrig. Mechanics & Repairers	309	395	152	86	66
Aircraft Mechanics	70	66	7	-4	11
Auto Accessories Installers	*	*	*	*	*
Auto Body Repairers	180	224	66	44	22
Auto Mechanics & Apprentices	866	1,158	479	292	187
Data Processing Machine Repairers	114	180	77	66	11
Farm Implement Mechanics	16	27	22	11	11
Heavy Equipment Mechanics Including Diesel	775	856	268	81	187
Household Appliance Mechanics	123	150	60	27	33
Loom Fixers	41	36	17	-5	22
Office Machine Repairers	67	118	62	51	11
Radio & Television Repairers	107	131	46	24	22
Railroad & Car Shop Repairers	23	20	8	-3	11
Other Mechanics & Apprentices	110	113	25	3	22
Printing Trade Craft Workers	709	720	220	11	209
Bookbinders	91	93	46	2	44
Composition & Typesetters	264	236	60	-28	98
Electrotypers & Stereotypers	*	*	*	*	*
Engravers, Except Photoengravers	13	14	1	1	0
Photoengravers & Lithographers	55	65	21	10	11
Pressmen, Plate Printers & Apprentices	279	309	85	30	55

Table 12 (continued)

LOWELL LMA

OCCUPATIONS	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974-1985		
			Total Demand	Due to Growth	Due to Separations
Transportation, Public Utility Crafts	370	369	32	-1	33
Electric Power Line Installers & Repairers	110	120	21	10	11
Locomotive Engineers	15	17	2	2	0
Locomotive Engineers Helpers	15	6	-9	-9	0
Power Station Operators	13	12	-1	-1	0
Telephone Installers & Repairers	197	198	23	1	22
Telephone Line Installers & Splicers	20	16	-4	-4	0
Other Crafts, Kindred Workers	1,082	1,024	360	-58	418
Bakers	101	86	18	-15	33
Cabinetmakers	48	47	10	-1	11
Carpet Installers	64	72	19	8	11
Crane, Derrick, & Hoist Operators	125	135	43	10	33
Decorators & Window Dressers	61	70	42	9	33
Dental Laboratory Technicians	19	16	8	-3	11
Furniture & Wood Finishers	28	25	8	-3	11
Furriers	0	0	0	0	0
Glaziers	19	28	9	9	0
Inspectors, Log & Lumber	0	0	0	0	0
Inspectors, Other	53	53	22	0	22
Jewelers & Watchmakers	*	*	*	*	*
Millers, Grain, Flour, Feed	0	0	0	0	0
Motion Picture Projectionists	*	*	*	*	*
Opticians, Lens Grinders & Polishers	51	76	47	25	22
Piano & Organ Tuners & Repairers	0	0	0	0	0
Shipfitters	*	*	*	*	*
Shoe Repairers	55	21	-1	-34	33
Sign Painters & Letterers	30	40	32	10	22
Stationary Engineers	132	110	22	-22	44
Stone Cutters & Stone Carvers	36	38	24	2	22
Tailors	79	64	30	-14	44
Upholsterers	29	31	13	2	11
Craft & Kindred Workers, N.E.C.	138	96	2	-42	44
Operatives	14,491	15,307	6,866	816	6,050
Operatives, Except Transportation	11,973	12,632	6,159	659	5,500
Semiskilled Metal Working	994	1,013	354	24	330
Drill Press Operators	46	44	9	-2	11
Furnace Tenders, Smelters, & Pourers, Metal	30	32	13	2	11
Grinding Machine Operatives	69	75	28	6	22
Heaters, Metal	0	0	0	0	0
Lathe & Milling Machine Operatives	93	89	18	-4	22
Metal Platers	88	74	8	-14	22
Other Precision Machine Operatives	60	67	29	7	22
Punch & Stamping Press Operatives	55	55	22	0	22
Solderers	252	189	58	-63	121
Welders & Flame Cutters	301	393	169	92	77
Semiskilled Textile	632	464	96	-168	264
Carding, Lapping, & Combing Operatives	33	16	-6	-17	11
Knitters, Loopers, & Toppers	62	31	-9	-31	22
Spinners, Twistors, & Winders	128	110	59	-18	77
Weavers	31	23	3	-8	11
Other Textile Operatives	378	284	49	-94	143

Table 12 (continued)

LOWELL LMA

OCCUPATIONS	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974-1985		
			Total Demand	Due to Growth	Due to Separations
Semiskilled Packing, Inspecting	2,361	2,690	1,627	329	1,298
Checkers, Examiners, & Inspectors, Mfg.	1,111	1,375	347	264	583
Graders & Sorters, Manufacturing	31	27	18	-4	22
Meat Wrappers, Retail Trade	154	184	140	30	110
Packers & Wrappers, Except Meat & Produce	1,049	1,096	619	47	572
Produce Graders & Packers, Except Factory & Farm	16	8	3	-8	11
Other Operatives, Except Transportation	7,996	8,460	4,082	474	3,608
Asbestos & Insulation Workers	15	21	6	6	0
Assemblers	1,666	2,046	1,282	380	902
Blasters	*	*	*	*	*
Bottling & Canning Operatives	35	37	13	2	11
Surveyor Helpers	0	0	0	0	0
Clothing Ironers & Pressers	118	75	12	-43	55
Cutting Operatives, N.E.C.	171	169	75	-2	77
Dressmakers, Except Factory	54	49	39	-5	44
Drillers, Earth	30	35	16	5	11
Dry Wall Installers, & Lathers	105	124	30	19	11
Dyers	56	57	12	1	11
Filers, Polishers, Sanders, & Buffers	121	116	39	-5	44
Garage Workers & Gas Station Attendants	336	333	41	-3	44
Laundry & Dry Cleaning Operatives, N.E.C.	112	93	47	-19	66
Meat Cutters & Butchers, Except Mfg.	191	175	50	-16	66
Meat Cutters, Butchers	41	39	9	-2	11
Milliners	0	0	0	0	0
Mine Operatives, N.E.C.	*	*	*	*	*
Mixing Operatives	50	49	10	-1	11
Oilers & Greasers, Except Auto	49	35	-3	-14	11
Painters, Manufactured Articles	155	177	77	22	55
Photographic Process Workers	98	122	79	24	55
Riveters & Fasteners	17	16	10	-1	11
Sailors & Deckhands	0	0	0	0	0
Sawyers	49	49	22	0	22
Sewers & Stitchers	985	903	556	-82	633
Shoemaking Machine Operatives	279	175	28	-104	132
Furnace Tenders & Stokers, Except Metal	132	98	21	-34	55
Winding Operatives, N.E.C.	63	75	45	12	33
Miscellaneous Machine Operatives	1,368	1,445	605	77	528
Operatives, N.E.C.	1,683	1,941	962	258	704
Transportation Equipment Operatives	2,518	2,675	707	157	550
Boat Operators	*	*	*	*	*
Bus Drivers	223	216	81	-7	83
Conductors & Operators, Urban Rail Transit	10	13	3	3	0
Delivery & Route Workers	569	633	174	64	110
Fork Lift & Tow Motor Operators	264	301	81	37	44
Rail Vehicle Operators, N.E.C.	0	0	0	0	0
Parking Attendants	13	12	10	-1	11
Railroad Brake Operators	13	14	1	1	0
Railroad Switch Operators	0	0	0	0	0
Taxicab Drivers & Chauffeurs	187	170	49	-17	66
Truck Drivers	1,235	1,312	297	77	220
Service Workers	8,127	8,603	5,646	476	5,170
Cleaning Service Workers	1,602	1,720	1,097	118	979
Lodging Quarters Cleaners, Except Private Household	31	30	65	-1	66
Building Interior Cleaners, N.E.C.	518	599	455	81	374
Janitors & Sextons	1,003	1,041	577	38	539

Table 21 (continued)

LOWELL, MA

OCCUPATIONS	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974-1985		
			Total Demand	Due to Growth	Due to Separations
Food Service Workers	2,654	2,888	1,763	234	1,529
Bartenders	174	208	111	34	77
Waiter's Assistants	37	38	12	1	11
Cooks, Except Private	644	732	385	88	297
Dishwashers	107	100	37	-7	44
Food Counter & Fountain Workers	432	463	295	31	264
Waiters	933	1,025	730	92	638
Food Workers, N.E.C., Except Private	327	322	193	-5	198
Health Service Workers	1,733	1,849	1,601	116	1,485
Dental Assistants	119	163	176	44	132
Health Aides, Except Nursing	130	105	85	-25	110
Health Trainees	11	0	0	-11	11
Lay Midwives	0	0	0	0	0
Nursing Aides, Orderlies, & Attendants	891	932	723	41	682
Practical Nurses	582	649	617	67	550
Personal Service Workers	840	935	744	95	649
Flight Attendants	16	17	23	1	22
Attendants, Recreation & Amusement	34	31	19	-3	22
Attendants, Personal Service, N.E.C.	66	69	58	3	55
Baggage Porters & Bellhops	*	*	*	*	*
Barbers	116	90	18	-26	44
Boarding & Lodging Housekeepers	60	72	78	12	66
Boothblacks	0	0	0	0	0
Child Care Workers, Except Private	100	157	167	57	110
Elevator Operators	*	*	*	*	*
Hairdressers, Cosmetologists	302	356	296	54	242
Housekeepers, Except Private	99	87	54	-12	66
School Monitors	16	23	13	7	11
Ushers, Recreation & Amusement	9	12	3	3	0
Welfare Service Aides	11	13	13	2	11
Protective & Service Workers	1,129	1,114	381	-15	396
Crossing Guards & Bridgetenders	30	27	19	-3	22
Fire Fighters	365	393	83	28	55
Guards	387	321	176	-66	242
Marshals & Constables	0	0	0	0	0
Police & Detectives	343	371	94	28	66
Sheriffs & Bailiffs	*	*	*	*	*
Private Household Workers	169	97	60	-72	132
Child Care Workers	70	37	22	-33	55
Cooks, Private	*	*	*	*	*
Housekeepers, Private	38	23	18	-15	33
Launderers, Private Household	0	0	0	0	0
Cleaners & Servants, Private Household	52	31	23	-21	44
Laborers, Except Farm	2,798	3,016	900	218	682
Animal Caretakers, Except Farm	82	123	85	41	44
Carpenters, Helpers	108	105	8	-3	11
Construction Laborers, Exc. Carpenter's Help	636	687	161	51	110
Fishers, Hunters, & Trappers	*	*	*	*	*
Freight, Material Handlers	443	470	126	27	99

Table 12 (continued)

LOWELL LMA

OCCUPATIONS	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974-1985		
			Total Demand	Due to Growth	Due to Separations
Garbage Collectors	38	52	25	14	11
Gardeners & Groundskeepers, Except Farm	208	236	127	28	99
Longshore Workers & Stevedores	0	0	0	0	0
Timbercutting & Logging Workers	*	*	*	*	-*
Stock Handlers	751	839	242	88	154
Teamsters	0	0	0	0	0
Vehicle Washers & Equipment Cleaners	134	140	39	6	33
Warehouse Laborers, N.E.C.	85	65	-9	-20	11
Other Laborers	299	290	101	-9	110
Farmers & Farm Workers	292	167	-26	-125	99 ←
Farmers & Farm Managers	87	50	7	-37	44
Farmers (Owners & Tenants)	86	48	-5	-38	33
Farm Managers	*	*	*	*	*
Farm Laborers, Farm Supervisors	205	117	-22	-88	66
Farm Labor Supervisors	*	*	*	*	*
Farm Laborers, Wage Workers	161	84	-33	-77	44
Farm Laborers, Unpaid Family	35	26	2	-9	11
Farm Laborers, Self-Employed	0	0	0	0	0

* Employment figures suppressed for industries with less than 10 employees in both time periods.

IV. Hours and Earnings/Labor Turnover

Hours and earnings for the Lowell LMA over the period 1969 through 1978 are shown in Table 13. It is interesting to note the fairly continuous increase in average weekly earnings for production workers, however it should be kept in mind that the average weekly earnings is a function of both average hourly wage and average weekly hours worked. For example, February (the month of the Blizzard of '78) registered a decrease in average weekly earnings resulting from decreases in both average weekly hours and average hourly wage.

Table 14 shows industries, numbers of firms, payroll, average wage and average monthly employment data obtained from the ES-202 Report for the Lowell LMA in calendar year 1977. Although many of the industries listed are not large employers in the Lowell LMA, manufacturing, with a total of 309 firms, ranked first in average employment at a figure of 21,869, which was 42 percent of All Subject Employment. The average annual wage for All Subject Employment was \$9,872. Agriculture and Retail Trade had the lowest average wages but it should be recognized that both part-time and seasonal employment are factors which tend to deflate the figures. Industries with the largest numbers of firms are Retail Trade and Services. Total payroll for All Subject Employment was \$513,999,993 of which 15 percent was provided through Retail Trade Industries and 14 percent by Services.

For March 1979, the average weekly earnings of a manufacturing production workers in the Lowell LMA was \$207.36 as shown in Table 15. This amount was 85.9 percent of the \$241.26 average weekly wage paid to production workers statewide. The Lowell worker was on the job six tenths of an hour less than his statewide counterpart and he earned 75 cents less per hour.

Tables 16, 17, and 18 show percent of job openings filled with respect to hourly wage during the period October 1978 through March 1979.

Labor Turnover, shown on Table 19, indicates continuing confidence in the economy. Accession rates are generally higher than separation rates, with the exception of apparel and leather, and most industries still have healthy rates of new hires.

Table 13
Lowell Area Hours and Earnings
For
Total Manufacturing and Nondurable Goods Manufacturing
1969-1978

	Total Manufacturing			Nondurable Goods		
	Average Weekly Earnings	Average Weekly Hours	Average Hourly Wage	Average Weekly Earnings	Average Weekly Hours	Average Hourly Wage
<u>1978</u>						
January	\$184.47	39.5	\$4.67	\$182.96	40.3	\$4.54
February	166.11	35.8	4.64	171.46	37.6	4.56
March	189.82	39.3	4.83	192.96	40.2	4.80
April	192.06	39.6	4.85	193.46	40.9	4.73
May	194.22	39.8	4.88	193.66	40.6	4.77
June	201.14	40.8	4.93	196.59	41.3	4.76
July	192.77	38.4	5.02	198.45	40.5	4.90
August	193.00	38.6	5.00	198.86	40.5	4.91
September	203.21	40.4	5.03	197.64	40.5	4.88
October	200.40	40.0	5.01	194.17	40.2	4.83
November	203.20	40.0	5.08	199.89	40.3	4.96
December	210.12	40.8	5.15	205.63	40.8	5.04
<u>Annual Average</u>						
1978	195.20	39.4	4.92	193.81	40.3	4.81
1977	175.63	38.6	4.55	173.60	39.1	4.44
1976	167.96	38.7	4.34	164.16	38.9	4.22
1975	159.01	38.5	4.13	153.25	38.7	3.96
1974	147.83	38.7	3.82	148.21	38.9	3.81
1973	140.26	39.4	3.56	139.55	39.2	3.56
1972	130.75	39.5	3.31	130.48	39.3	3.32
1971	116.96	38.6	3.03	118.97	38.5	3.09
1970	111.65	38.5	2.90	112.60	38.3	2.94
1969	104.76	38.8	2.70	104.88	38.7	2.71

Source: Division of Employment Security, Occupation-Industry Research Department.

Table 14
Lowell IMA and Massachusetts
Private Sector Employment and Wages
1977

SIC Code	Lowell IMA				Massachusetts			
	Number of Firms	Payroll	Average Wage	Average Monthly Employment	Number of Firms	Payroll	Average Wage	Average Monthly Employment
All Subject Employment	3,107	\$513,999,993	\$ 9,872	52,065	114,662	\$21,157,322,389	\$10,788	1,961,176
01-09 Agriculture	28	486,808	4,726	103	1,839	94,936,704	10,369	9,156
10-14 Mining	5	796,890	12,260	65	87	13,324,703	14,626	911
15-17 Construction	519	25,284,959	10,535	2,400	13,159	970,100,248	13,641	71,115
19-39 Manufacturing	309	263,419,588	12,045	21,869	10,224	7,844,143,022	12,686	618,322
40-49 Transportation, Communications and Utilities	122	30,175,306	12,227	2,468	4,657	1,619,802,955	14,788	109,534
50-51 Wholesale Trade	166	25,521,749	12,541	2,035	10,209	1,679,097,571	13,976	59,947
52-59 Retail Trade	954	76,311,394	6,298	12,117	32,899	2,725,954,009	7,647	51,590
60-67 Finance, Insurance and Real Estate	164	20,007,669	9,808	2,040	8,519	1,597,404,766	11,814	135,210
70-89 Services	840	71,995,632	8,063	8,929	33,069	4,612,557,776	9,524	484,313

Source: ES 202 for firms covered by the Commonwealth's Employment Security Law

Table 15
Hours and Earnings of Production Workers
Manufacturing-Lowell Area

Industry	January 1979			February 1979			March 1979		
	Average Weekly Earnings	Average Weekly Hours	Average Hourly Wage	Average Weekly Earnings	Average Weekly Hours	Average Hourly Wage	Average Weekly Earnings	Average Weekly Hours	Average Hourly Wage
Manufacturing-Total	\$200.06	38.4	\$5.21	\$202.18	39.8	\$5.08	\$207.36	40.5	\$5.12
Durable Goods	195.23	37.4	5.22	196.67	39.1	5.03	204.12	40.5	5.04
Primary Metals	279.05	40.5	6.89	265.20	39.0	6.80	270.92	39.9	6.79
Fabricated Metals	168.03	37.4	4.50	173.54	37.4	4.64	182.67	39.2	4.66
Machinery	173.33	36.8	4.71	180.34	40.8	4.42	190.03	42.8	4.44
Elec. Machinery	130.60	34.1	3.83	137.46	34.8	3.95	144.54	36.5	3.96
Transp. Equipment	258.52	41.9	6.17	256.26	41.6	6.16	258.26	42.2	6.12
Other	253.60	36.7	6.91	271.10	38.4	7.06	272.88	37.9	7.20
Nondurable Goods	203.84	39.2	5.20	206.85	40.4	5.12	209.79	40.5	5.18
Food	225.25	42.5	5.30	211.29	40.4	5.23	206.74	40.3	5.13
Textiles	189.74	41.7	4.55	208.28	44.6	4.67	210.98	44.7	4.72
Apparel	154.08	36.0	4.28	144.24	34.1	4.23	154.28	36.3	4.25
Paper	204.91	40.9	5.01	200.80	40.0	5.02	205.02	40.2	5.10
Printing	302.57	42.2	7.17	293.70	41.6	7.06	298.07	41.0	7.27
Other	138.20	33.3	4.15	142.42	36.8	3.87	145.36	36.8	3.95
Mass. Manufacturing	237.05	40.8	5.81	235.94	40.4	5.84	241.26	41.1	5.87
Durable Goods	261.84	42.3	6.19	259.16	41.8	6.20	264.35	42.5	6.22
Nondurable Goods	207.48	39.0	5.32	208.74	38.8	5.38	213.94	39.4	5.43

Source: Division of Employment Security, Occupation-Industry Research Department.

Table 16
Percent Of All Job Openings Received
and
Filled By Hourly Wage Rates
Lowell LMA
(October 1978-March 1979)

Hourly Wage	Number Of Openings Received	Number Of Openings Filled	Percent Of Openings Filled
TOTAL*	2,659	1,660	62.4
Under \$2.65	8	7	87.5
\$2.65-\$2.99	377	268	71.1
\$3.00-\$3.49	763	387	50.7
\$3.50-\$3.99	384	216	56.3
\$4.00-\$4.49	413	311	75.3
\$4.50-\$4.99	423	344	81.3
\$5.00-\$5.49	130	78	60.0
\$5.50-\$5.99	35	10	28.6
\$6.00 & Over	107	36	33.6
Other *	19	3	15.8

* Other includes wages not paid on a time basis.

Source: March 1979 ESARS, Table B07- Table is for Fiscal Year beginning October 1, 1978.

Table 17
Percent of Nonmandatory Listing Openings Received
and
Filled By Hourly Wage Rates
Lowell LMA
(October 1978-March 1979)

Hourly Wage	Number Of Openings Received	Number Of Openings Filled	Percent Of Openings Filled
TOTAL	1,941	1,319	68.0
Under \$2.65	6	6	100.0
\$2.65-\$2.99	284	218	76.8
\$3.00-\$3.49	443	225	50.8
\$3 50-\$3.99	274	181	66.1
\$4.00-\$4.49	359	291	81.1
\$4.50-\$4.99	361	300	83.1
\$5.00-\$5.49	111	70	63.1
\$5.50-\$5.99	27	5	18.5
\$6.00 & Over	61	20	32.8
Other *	15	3	20.0

* Other includes wages not paid on a time basis

Source: March 1979 ESARS Table D07

Table 18
Percent of Mandatory Listing Openings Received
And
Filled By Hourly Wage Rates
Lowell LMA
(October 1978-March 1979)

Hourly Wage	Number of Openings Received	Number Of Openings Filled	Percent Of Openings Filled
TOTAL	718	341	47.5
Under \$2.65	2	1	50.0
\$2.65-\$2.99	93	50	53.8
\$3.00-\$3.49	320	162	50.6
\$3.50-\$3.99	110	35	31.8
\$4.00-\$4.49	54	20	37.0
\$4.50-\$4.99	62	44	71.0
\$5.00-\$5.49	19	8	42.1
\$5.50-\$5.99	8	5	62.5
\$6.00 & Over	46	16	34.8
Other *	4	0	0

* Other includes wages not paid on a time basis.

Source: March 1979 ESARS Table B07

Table 19
Labor Turnover By Industry
Lowell LMA
January-March 1979

	Employment	Accession Rates			Separation Rates		
		Total	New Hires	Recalls	Total	Quits	Layoffs
<u>January 1979</u>							
Manufacturing - Total	24,000	7.3	6.2	0.4	5.5	3.0	1.4
Durable Goods-Total	12,900	5.7	4.6	0.1	3.2	2.0	0.3
Nondurable Goods - Total	11,100	9.1	8.1	0.9	8.3	4.3	2.6
Food & Kindred	1,100	3.6	3.6	0.0	7.9	3.2	2.3
Textile Mill	3,000	8.7	7.0	1.7	7.2	5.3	0.9
Apparel	1,000	5.9	5.2	0.7	18.3	2.4	14.5
Leather	1,300	10.6	7.8	2.2	16.8	8.3	7.4
<u>February 1979</u>							
Manufacturing - Total	24,100	6.1	5.6	0.4	7.4	4.9	1.0
Durable Goods - Total	12,200	6.2	5.9	0.4	7.4	5.0	0.4
Nondurable Goods - Total	10,900	5.8	5.3	0.5	7.4	4.8	1.7
Food & Kindred	1,100	3.5	3.5	0.0	4.6	3.5	0.0
Textile Mill	3,000	11.5	10.7	0.7	12.8	9.8	1.8
Apparel	1,000	4.0	2.6	1.4	10.6	3.0	7.6
Leather	1,300	4.9	3.8	1.2	7.7	3.9	2.1
<u>March 1979</u>							
Manufacturing - Total	24,200	6.2	5.2	0.7	4.6	2.5	1.4
Durable Goods - Total	13,400	5.8	5.3	0.1	2.4	1.9	--
Nondurable Goods - Total	10,800	6.6	5.1	1.4	7.4	3.2	3.2
Food & Kindred	1,100	4.3	2.6	1.6	3.5	2.5	0.2
Textile Mill	2,900	12.8	10.1	2.2	11.6	5.4	4.3
Apparel	1,000	5.3	1.1	4.2	6.4	1.1	5.0
Leather	1,300	10.2	7.8	2.2	10.3	6.1	2.1

Source; Division of Employment Security, Occupation-Industry Research Department.

Definitions of Terms in Table 19

Labor Turnover:	Refers to the gross movement of wage and salary workers into and out of jobs with respect to individual firms.
Accessions, Total:	All permanent or temporary additions, whether new or former employers.
New Hires:	Permanent or temporary additions of persons who have not been specifically recalled by the employer, or transferred from another establishment of the same company.
Recalls:	Permanent or temporary additions to the employment roll of persons specifically recalled to a job in the same establishment of the company following a period of layoff lasting more than seven consecutive days.
Separations, Total:	Terminations of employment resulting from: quits, discharges, layoffs, transfers out to another establishment of the same company, military duty and miscellaneous causes.
Quits:	Terminations of employment initiated by employee for any reason except to retire, to transfer to another establishment of the same company or to serve in the armed forces.
Layoffs:	Suspensions from pay status (which last or are expected to last more than seven consecutive calendar days) initiated by the employer without prejudice to the worker for such reasons as lack of orders, model change-over, termination of seasonal employment, etc.

V. Recent Unemployment Trends and Outlook

During 1978, annual average unemployment in the Lowell LMA declined by 1,794 individuals to level out at 7,342 as shows in Table 20. The year started with the high of 8.4 percent and ended at 5.8 percent in December. The unadjusted 1978 average unemployment rate for Massachusetts was 6.1 percent and 6.0 percent for the Nation. Revised average unemployment rates for 1978 within the ten larger Massachusetts LMA's were Worcester 4.9 percent, Springfield 5.3 percent, Fitchburg 5.8 percent, Boston 5.9 percent, Brockton 6.4 percent, Lowell 6.5 percent, Lawrence-Haverhill 6.7 percent, Pittsfield 6.8 percent, Fall River 7.0 percent and New Bedford 8.4 percent. In view of previous recession predictions by some economists, it is reassuring to note that the Lowell LMA first quarter 1979 unemployment rates are lower than in the first quarter 1978. It will be interesting to observe any trends that might develop over the coming months. Growth is expected to continue but at a slower rate. The real labor problem will be not enough job openings from growth to absorb additions to the labor force. However, in view of the continuing economic strengths in the Lowell LMA, the attitude and outlook is cautious optimism.

Labor force data for the City of Lowell has been disaggregated from the Lowell LMA by the Census Share Method and appears in Table 21.

Tables 22 and 23 graphically depict labor force, employment and unemployment rates for the Lowell LMA in the 1978 and first quarter 1979.

Table 24 shows information on claimants paid regular unemployment insurance benefits by residence in the Lowell LMA during the period January through March 1979.

Table 20
Unemployment Rates
Lowell LMA, Massachusetts and United States
1975 Through March 1979

	Total Employment	Total Unemployment	Labor Force	Unemployment Rate		
				Lowell LMA	Mass.	U. S.
1975	91,072	12,259	103,331	11.9	11.2	8.5
1976	95,917	10,918	106,835	10.2	9.5	7.7
1977	98,958	9,136	108,094	8.5	8.1	7.0
1978	105,123	7,342	112,465	6.5	6.1	6.0
<u>1978</u>						
January	103,597	9,508	113,105	8.4	7.5	7.0
February	102,852	8,205	111,057	7.4	7.1	6.9
March	103,918	7,070	110,988	6.4	6.2	6.6
April	103,340	6,537	109,877	5.9	5.7	6.0
May	104,860	6,048	110,908	5.5	5.4	5.5
June	108,171	9,087	117,258	7.8	6.9	6.2
July	106,984	8,133	115,117	7.1	6.3	6.3
August	106,177	8,678	114,855	7.6	6.7	5.8
September	104,494	7,074	111,568	6.3	5.8	5.7
October	105,333	5,242	110,575	4.7	4.3	5.4
November	106,029	6,059	112,088	5.4	5.2	5.5
December	105,722	6,463	112,185	5.8	5.7	5.6
<u>1979</u>						
January	107,106	9,118	116,224	7.8	7.5	6.4
February	108,811	6,982	115,793	6.0	6.6	6.4
March	108,775	7,378	116,153	6.4	6.7	6.1
Quarterly Average	108,231	7,826	116,057	6.7	6.9	6.3

Source: Division of Employment Security - Labor Area Research Department

Table 21
Labor Force Data *
City of Lowell
1975 Through March 1979

	Total Employment	Total Unemployment	Labor Force	Unemployment Rate
1975	42,533	6,088	48,621	12.5
1976	44,796	5,422	50,218	10.8
1977	46,216	4,537	50,753	8.9
1978	49,096	3,646	52,742	6.9
<u>1978</u>				
January	48,383	4,722	53,105	8.9
February	48,035	4,075	52,110	7.8
March	48,533	3,511	52,044	6.7
April	48,263	3,246	51,509	6.3
May	48,973	3,003	51,976	5.8
June	50,519	4,513	55,032	8.2
July	49,965	4,039	54,004	7.5
August	49,588	4,310	53,898	8.0
September	48,802	3,513	52,315	6.7
October	49,194	2,603	51,797	5.0
November	49,519	3,009	52,528	5.7
December	49,375	3,210	52,585	6.1
<u>1979</u>				
January	50,022	4,528	54,550	8.3
February	50,818	3,467	54,285	6.4
March	50,801	3,664	54,465	6.7
Quarterly Average	50,547	3,886	54,433	7.1

* Disaggregated from the Lowell LMA by the Census Share Method

Table 22
LOWELL LMA
LABOR FORCE (SOLID) AND EMPLOYMENT (DASH)

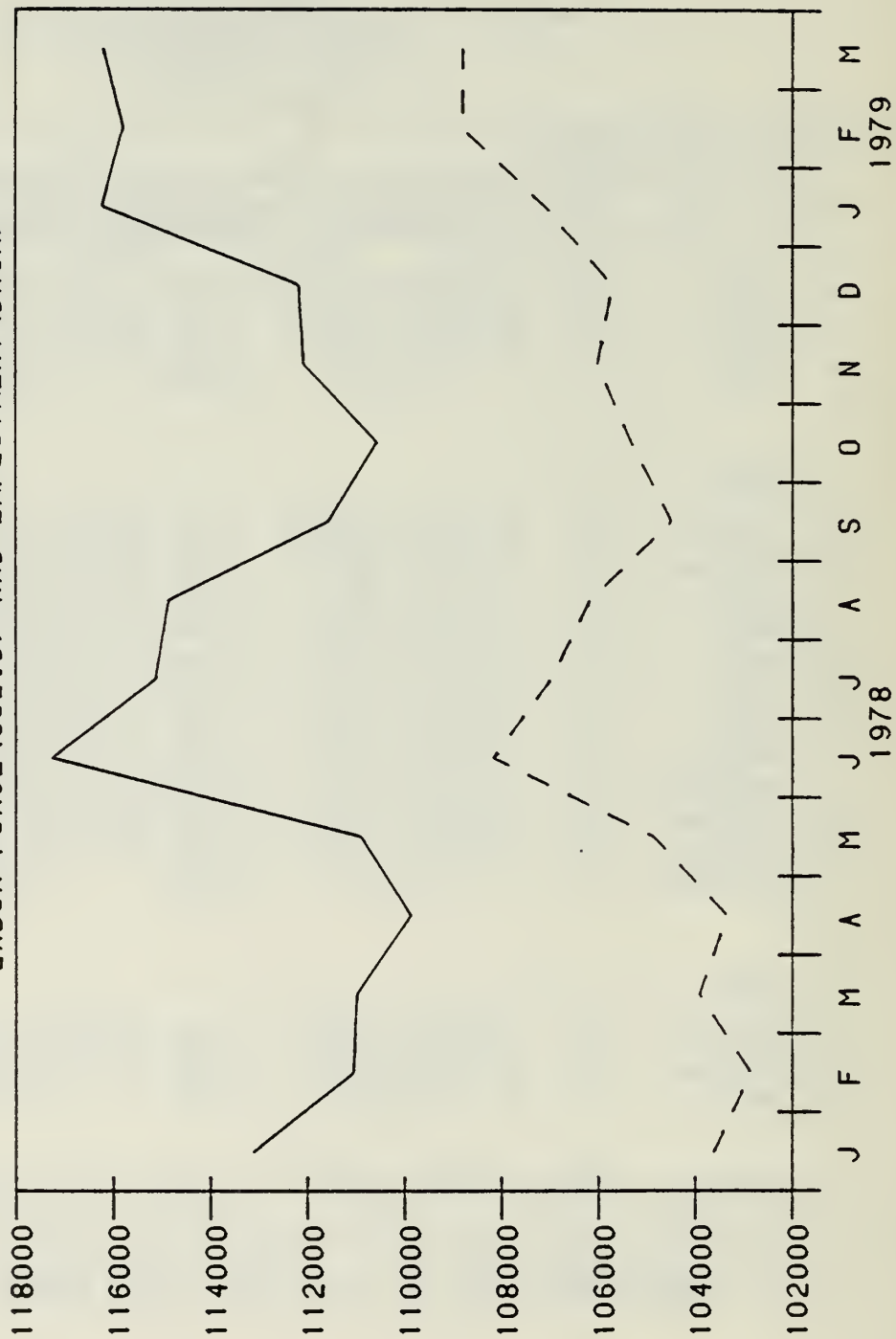


Table 23
 LOWELL LMA UNEMPLOYMENT RATE
 SEASONALLY UNADJUSTED BENCHMARK = 1977

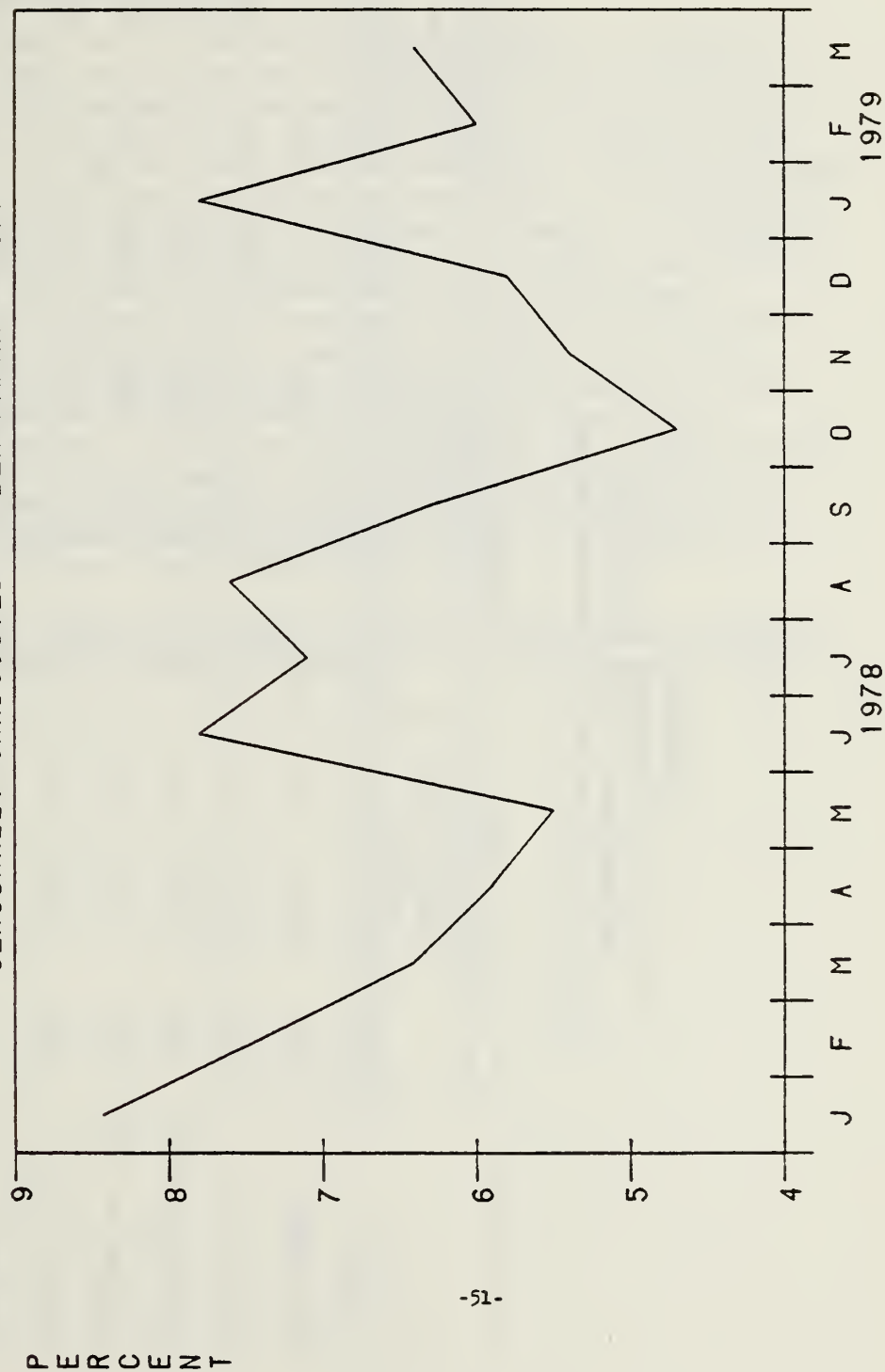


Table 24
 Claimants Paid Regular U.I. Benefits
 By Residence in the Lowell IMA
 January Through March 1979 Survey Weeks*

City	January 1979			February 1979			March 1979		
	Collecting at Lowell Local Office		Total	Collecting at Lowell Local Office		Total	Collecting at Lowell Local Office		Total
	Total	Percent		Total	Percent		Total	Percent	
AREA TOTAL	2,792	2,632	94.3	2,295	2,161	94.2	2,642	2,497	94.5
Lowell 241	1,396	1,389	99.5	1,116	1,113	99.7	1,330	1,327	99.8
BillERICA 242	361	264	73.1	305	217	71.1	349	252	72.2
Chelmsford 243	246	242	98.4	217	214	98.6	241	239	99.2
Dracut 244	345	337	97.7	308	301	97.7	335	330	98.5
Dunstable 245	24	22	91.7	15	15	100.0	14	14	100.0
Tewksbury 247	218	182	83.5	181	153	84.5	207	174	84.1
Tyngsborough 248	75	73	97.3	62	60	96.8	68	66	97.1
Westford 249	127	123	96.9	91	88	96.7	98	95	96.9

* The Survey Week of each month is that week which contains the 12th day of the month.

VI. Data on the Insured Unemployed

A survey was performed on the insured unemployed benefit recipients in the Lowell office of the Division of Employment Security in December 1978. Results of this survey are included in Tables 25 through 28. A percentage breakout by age groups shows that 19.0 percent were under 25 years of age and 39 percent were over 44 years old. Those individuals collecting benefits were from the following occupations: professional, technical and management 18.3 percent; clerical and sales 23.2 percent; services 7.5 percent; farming, fish and forestry 2 percent; processing 1.4 percent; machine trades 6.0 percent; bench work 9.6 percent; structural 18.9 percent; and miscellaneous work 12 percent. Reasons for separation from employment were: layoff 83 percent; quit for voluntary retirement 0.2 percent; quit because of pregnancy 0.2 percent; other quits 3.2 percent; discharges 3.1 percent; and other separations 10.2 percent. Of all the male claimants, 38.2 percent were over 44 years old and of all female claimants 39.4 percent were over 44 years of age. The survey also revealed that 23.9 percent of the male claimants earned less than \$150 per week while 48.2 percent of the female claimants earned less than \$150 per week.

Table 28 graphically shows the breakout of those individuals collecting unemployment insurance by industry in the Lowell LMA in December 1978.

Definition of Terms

Programs:

- Regular: Claims filed under
1. The Massachusetts Employment Security Law, Chapter 151A of the General Laws of Massachusetts.
 2. Unemployment Compensation for Federal Employees Employees (UCFE) Chapter 85 Title V of U. S. Code.
 3. Unemployment Compensation for Veterans (UCX) Chapter 85 Title V of the U. S. Code.
- TREX: Federal-State Extended Unemployment Compensation Act of 1970.
- PSE: Public Service Employment
- Duration: Most recent spell of unemployment, number of uninterrupted weeks of unemployment since last employed. .
- SIC Code: Standard Industrial Classification in accordance with the 1972 Standard Industrial Classification Manual and its Supplements. The classification is that of most recent employer in the base period of the claim.
- Occupational Code: A three-digit occupational code in accordance with the Dictionary of Occupational Titles and supplements. The occupation code is the most recent job in the last period of the claim.
- Average Weekly Wage: An amount equal to one-twenty-sixth of the total wages reported for an individual in the two highest quarters of his last period or if wages were reported for not more than two quarters the average weekly wage was equal to one-thirteenth of the highest quarter's reported wages.

TABLE 25

SELECTED CHARACTERISTICS OF INSURED UNEMPLOYED
LOWELL CETA

DECEMBER 1978

	ALL PROGRAMS		PRO- GRAMS	PSE
	NUMBER	PERCENT	NUMBER	NUMBER
TOTAL	2005	100.0	1584	421
AGE				
UNDER 20	-	-	-	-
UNDER 25	381	19.0	287	94
25 - 34	557	27.8	413	145
35 - 44	285	14.2	234	51
45 - 54	351	17.5	271	80
55 - 64	263	13.1	217	46
65 & OVER	161	8.0	155	5
I.N.A.	8	.4	8	-
SEX				
MEN	1188	59.3	837	351
WOMEN	817	40.7	748	70
I.N.A.	-	-	-	-
ETHNIC GROUP				
WHITE	1930	96.3	1536	394
NON-WHITE	75	3.7	48	27
I.N.A.	-	-	-	-
SPANISH SURNAME	35	1.7	21	13
OCCUPATION				
PROF., TECH., MGT	367	18.3	319	48
CLERICAL/SALES	466	23.2	423	43
SERVICES	150	7.5	102	48
FARM, FISH, FOR.	40	2.0	8	32
PROCESSING	29	1.4	27	3
MACHINE TRADES	139	6.9	134	5
BENCH WORK	193	9.6	183	11
STRUCTURAL	378	18.9	236	142
MISC. WORK	241	12.0	153	88
I.N.A.	-	-	-	-
RECENT DURATION				
0-9 WEEKS	914	45.6	759	155
10-19 WEEKS	791	39.5	574	217
20-29 WEEKS	276	13.8	230	46
30 + WEEKS	24	1.2	21	3

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 25
CONTINUED

	ALL PROGRAMS		PRO- GRAMS	FSE
	NUMBER	PERCENT	NUMBER	NUMBER
INDUSTRY ATTACH.				
MANUFACTURING	496	24.7	496	-
CON. CONSTRUCT	217	10.8	214	3
TRAN./UTIL.	64	3.2	64	-
WHOL/RET. TRADE	265	13.2	265	-
FIN/INS/R.F.	32	1.6	29	3
SERVICES	252	12.6	244	8
GOVERNMENTS	670	33.4	263	407
OTHERS	8	.4	8	-
I.N.A.	-	-	-	-
AVE. WEEKLY WAGE				
UNDER \$100	228	11.4	217	11
\$100 - \$149	450	22.4	338	113
\$150 - \$199	683	34.1	407	276
\$200 - \$249	234	11.7	212	21
\$250 - \$299	172	8.6	172	-
\$300 OR MORE	233	11.6	233	-
I.N.A.	5	.2	5	-
SEPARATION REASON				
LAYOFF	1665	83.0	1249	415
QUIT VOL. RET.	5	.2	5	-
QUIT PREGNANCY	5	.2	5	-
QUIT OTHER	64	3.2	62	3
DISCHARGES	62	3.1	59	3
LABOR DISPUTE	-	-	-	-
OTHER/INA	204	10.2	204	-

TABLE 25
continuedOCCUPATIONS OF THE INSURED UNEMPLOYED
LOWELL CETA

DECEMBER 1978

	ALL AGES NUMBER	PER.	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL
TOTAL	1997	100.0	1223	775	8
0,1 PROF., TECH., MGR.	367	18.4	247	121	-
00,01 ARCH./ENGINEER	72	3.6	46	27	-
02 MATH & PHY. SCIENCE	13	.7	13	-	-
04 LIFE SCIENCES	8	.4	8	-	-
05 SOCIAL SCIENCES	-	-	-	-	-
07 MEDICINE & HEALTH	35	1.8	19	16	-
09 EDUCATION	35	1.8	29	5	-
10 MUSEUM, LIBRARY	3	.2	-	3	-
11 LAW & JURISPRUDENCE	21	1.1	13	8	-
12 RELIGION & THEOLOGY	3	.2	-	3	-
13 WRITING	5	.3	3	3	-
14 ART	3	.2	3	-	-
15 ENTERTAINMENT & REC	-	-	-	-	-
16 ADMINISTRATIVE SPEC	88	4.4	64	24	-
18 MANAGERS & OFFICIAL	46	2.3	24	21	-
19 PROFESSIONAL, TECH	32	1.6	24	8	-
2 CLERICAL, SALES	461	23.1	281	180	5
20 STENO, TYPE, FILING	155	7.8	107	48	3
21 COMPUTING & ACCOUNT	180	9.0	94	86	3
22 MATERIAL & PROD REC	38	1.9	29	8	-
23 INFO & MESSAGE DIST	32	1.6	24	8	-
24 MISC CLERICAL	5	.3	5	-	-
25 SALESMEN, SERVICES	5	.3	3	3	-
26,28 SALES, COMMODITI	29	1.5	13	16	-
29 MERCHANDISING	16	.8	5	11	-
3 SERVICES	150	7.5	70	80	-
30 DOMESTIC SERVICE	-	-	-	-	-
31 FOOD & BEVERAGE	75	3.8	43	32	-
32 LODGING	3	.2	-	3	-
33 BARBERING, COSMETOLO	-	-	-	-	-
34 AMUSEMENT & REC	-	-	-	-	-
35 MISC PERSONAL SERV	21	1.1	13	8	-
36 APPAREL & FURNISH	3	.2	-	3	-
37 PROTECTIVE SERV	29	1.5	8	21	-
38 BUILDING & RELATED	19	1.0	5	13	-
40-46 FARM/FISH	40	2.0	32	8	-
5 PROCESSING	29	1.5	19	11	-
50 PROCESSING OF METAL	-	-	-	-	-
51 ORE REFINING&FOUNDR	3	.2	3	-	-

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 25
CONTINUED

	ALL AGES NUMBER	PER.	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL
52 PROCESS/FOOD, TOBACCO	5	.3	-	5	-
53 PROCESSING OF PAPER	-	-	-	-	-
54 PROCES/OIL, COAL, GAS	-	-	-	-	-
55 CHEM, PLASTIC, SYN, RUB	11	.6	5	5	-
56 WOOD AND WOOD PROD	-	-	-	-	-
57 STONE, CLAY, GLASS	-	-	-	-	-
58 LEATHER, TEXTILES	8	.4	8	-	-
59 PROCES/OCCUPATIONS	3	.2	3	-	-

Table 25

OCCUPATIONS OF THE INSURED UNEMPLOYED
LOWELL CETA

DECEMBER 1978

	ALL AGES NUMBER	PER,	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL
TOTAL	1997	100.0	1223	775	8
6 MACHINE TRADES	139	7.0	91	48	-
60 METAL MACHINING	35	1.8	19	16	-
61 METALWORKING OCCUP	8	.4	5	3	-
62,63 MECHANICS REPAIR	40	2.0	32	8	-
64 PAPERWORKING	5	.3	5	-	-
65 PRINTING	16	.8	5	11	-
66 WOOD MACHINING	8	.4	5	3	-
67 MACH STONE, CLAY, GLA	-	-	-	-	-
68 TEXTILE	16	.8	11	5	-
69 MACHINE TRADES OCCU	11	.6	8	3	-
7 BENCH WORK	191	9.6	86	105	3
70 FAB, ASSBLY&REPAIR	3	.2	3	-	-
71 FAB, REPAIR SC&MED	13	.7	5	8	-
72 ASSBLY&REPAIR ELECT	46	2.3	25	21	-
73 FAB, REPR ASSRT MAIL	13	.7	11	3	3
74 PAINTING, DECORAT	8	.4	8	-	-
75 FAB&REPR PLASTIC SYN	8	.4	-	8	-
76 FAB&REPR WOOD PROD	19	1.0	-	19	-
77 FAB&REPR SAND STONE	-	-	-	-	-
78 FAB&REPR TEXTILE	78	3.9	35	43	-
79 BENCH WORK OCCUPAT	3	.2	-	3	-
8 STRUCTURAL WORK	378	18.9	247	131	-
80 METAL FABRICATING	5	.3	5	-	-
81 WELDERS, FLAME CUTT	3	.2	3	-	-
82 ELECTRICAL ASSBLY	35	1.8	19	16	-
84 PAINT, PLASTER, WATER	72	3.6	54	19	-
85 EXCAVAT, GRAD, PAVE	-	-	-	-	-
86 CONSTRUCTION OCCUPA	233	11.7	150	83	-
89 STRUCTURAL WORK OCC	29	1.5	16	13	-
9 MISCELLANEOUS	241	12.1	150	91	-
90 MOTOR FREIGHT	75	3.8	40	35	-
91 TRANSPORTATION OCCU	24	1.2	16	8	-
92 PACKAGING&MATERIALS	129	6.5	83	46	-
93 EXTRACT OF MINERALS	-	-	-	-	-
94 LOGGING OCCUPATIONS	-	-	-	-	-
95 PROD&DIST, UTILITIES	8	.4	5	3	-
96 AMUSE, REC., MOVIES	-	-	-	-	-
97 GRAPHIC ART WORK	5	.3	5	-	-
909 INFO NOT AVAILABLE	-	-	-	-	-

TABLE 25
continuedOCCUPATIONS OF THE INSURED UNEMPLOYED
LOWELL CETA

DECEMBER 1978

		ALL AGES NUMBER	PER.	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL
TOTAL		1997	100.0	1223	775	8
ACCOUNTING/AUDITING	160	24	1.2	13	11	-
PURCHASING MGT	162	5	.3	5	-	-
SALES/DISTRIBUT MGT	163	8	.4	8	-	-
ADVERTISING MGT	164	3	.2	3	-	-
PERSONNEL/TRAIN ADM	166	13	.7	11	3	-
INSPECT/INVEST, MGT	168	5	.3	3	3	-
ADMIN SPECIALT NEC	169	29	1.5	21	8	-
CONSTRUCTION MGT	182	3	.2	3	-	-
TRANS/COMM/UTILT MGT	184	3	.2	3	-	-
WHLE/RETAIL TRAD MGT	185	19	1.0	8	11	-
FINANC/INSUR/R E MGT	186	8	.4	3	5	-
SERVICE INDUSTRY MGT	187	5	.3	5	-	-
PUBLIC ADMIN MGT	188	3	.2	-	3	-
MISC MGT WORK NEC	189	5	.3	3	3	-
SECRETARIAL WORK	201	27	1.4	19	8	-
TYPING	203	70	3.5	40	29	-
CORRESPONDENCE WORK	204	5	.3	3	3	-
FILING	206	13	.7	13	-	-
DUPLICATE MACH WORK	207	3	.2	3	-	-
STEN/TYP/FIL/RELATED	209	37	1.9	29	8	3
BOOKKEEPING	210	21	1.1	8	13	-
CASHIERING	211	8	.4	5	3	3
TELLER SERVICE	212	21	1.1	13	8	-
AUTOMAT DATA PROCESS	213	43	2.2	21	21	-
BOOKKEEP-MACH WORK	215	5	.3	3	3	-
COMPUTING MACH WORK	216	3	.2	3	-	-
COMPUT/ACCT RECORDNG	219	78	3.9	40	38	-
CLERICAL WORK PROD	221	5	.3	5	-	-
CLERICAL SHIP/RECV	222	21	1.1	16	5	-
STOCK CHECK/RELATED	223	11	.6	8	3	-
MAIL SORT ETC	231	11	.6	8	3	-
POST OFFICE CLERICAL	232	8	.4	5	3	-
TELEPHONE WORK	235	5	.3	5	-	-
RECEPTION/INFO DISP	237	8	.4	5	3	-

TABLE 25
continuedOCCUPATIONS OF THE INSURED UNEMPLOYED
LOWELL CETA

DECEMBER 1978

		ALL AGES NUMBER	PER.	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL
TOTAL		1997	100.0	1223	775	8
MISC CLERICAL WORK	249	5	.3	5	-	-
BUS&COMMCL MACH	281	3	.2	-	3	-
JEWELRY & SILVERWARE	283	3	.2	3	-	-
COMMODITIES NEC	289	8	.4	3	5	-
SALES CLERKING	290	13	.7	3	11	-
MERCHANDISING WORK	299	3	.2	3	-	-
FOOD SERVING	311	13	.7	11	3	-
BARTENDING	312	8	.4	8	-	-
COOKING, LARGE HOTELS	313	11	.6	8	3	-
COOKING, SMALL HOTELS	314	3	.2	-	3	-
MISC COOKING	315	19	1.0	11	8	-
MEAT CUTTING	316	8	.4	3	5	-
KITCHEN WORK NEC	318	3	.2	-	3	-
FOOD & BEV PREP	319	11	.6	3	8	-
CLEANING & RELAT	381	8	.4	3	5	-
JANITORIAL SERV	382	11	.6	3	8	-
MIXING & BLENDING	550	3	.2	3	-	-
CASTING & MOLDING	556	3	.2	-	3	-
PROCESSING, CHEMICALS	559	5	.3	3	3	-

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 25
continuedOCCUPATIONS OF THE INSURED UNEMPLOYED
LOWELL CETA

DECEMBER 1978

		ALL AGES NUMBER	PFR.	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL
TOTAL		1997	100.0	1223	775	8
MACHINING & RELATED	600	19	1.0	11	8	-
TURNING	604	3	.2	3	-	-
MILLING & PLANING	605	3	.2	-	3	-
METAL MACHINING NEC	609	11	.6	5	5	-
FABRICATING MACHINE	616	5	.3	5	-	-
MISC METALWORKING	619	3	.2	-	3	-
MOTORIZED VEHICLE&ENG.	620	27	1.4	24	3	-
AIRCRAFT REPAIRING	621	3	.2	3	-	-
CARD, COMB, DRAW, RELA	680	3	.2	3	-	-
DPINNINH	682	3	.2	3	-	-
KNIT, EXCEPT HOSIFRY	685	5	.3	-	5	-
TEXTILE MACHINE WORK	689	5	.3	5	-	-
PLASTICS, SYNTHETICS,	690	8	.4	5	3	-
FABRICATION OF PROD.	692	3	.2	3	-	-
ENGRAV, ETCH, & RELATED	704	3	.2	3	-	-
ELECTRICAL APPLI&FIX	723	6	.3	6	-	-
ELECTRONIC COMPONENT	726	32	1.6	19	13	-
ELECTRICAL WIRE&CABL	728	8	.4	-	8	-

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 25

continued

OCCUPATIONS OF THE INSURED UNEMPLOYED
LOWELL CETA

DECEMBER 1978

		ALL AGES NUMBER	PER.	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL
TOTAL		1997	100.0	1223	775	8
LAY OUT, MARK, CUT, PUN	781	3	.2	-	3	-
HANDSEW, MEND, EMBROID	782	5	.3	5	-	-
TAILORING & DRESSMAK	785	5	.3	-	5	-
MACHINE SEWING, GARM	786	8	.4	5	3	-
MACH SEW, NONGARMENT	787	38	1.9	19	19	-
FOOTWEAR	788	19	1.0	5	13	-
FITT, BOLT, SCREW, RELA	801	3	.2	3	-	-
BODY WORK, TRANSP EQ	807	3	.2	3	-	-
WIRE COMMUN, DETECT	822	5	.3	3	3	-
LIGHT EQUIP&BUILD	824	24	1.2	11	13	-
LARGE HOUSEHOLD APPL	827	3	.2	3	-	-
ASSMBLY, INSTALL, REPR	829	3	.2	3	-	-
CARPENTRY & RELATED	860	96	4.8	54	43	-
BRICK&STONE MASONRY	861	13	.7	11	3	-
PLUMBING, GAS FITT	862	32	1.6	11	21	-
MISC CONSTRUCTION	869	91	4.6	75	16	-
TRAILER-TRUCK DRIV	904	16	.8	11	5	-
HEAVY TRUCK DRIV	905	35	1.8	21	13	-
LIGHT TRUCK DRIVING	906	19	1.0	8	11	-
MOTOR FREIGHT TRANSP	909	5	.3	-	5	-
PACKAGING	920	16	.8	3	13	-
HOISTING & CONVEYING	921	3	.2	3	-	-
MATERIAL MOVING&STOR	922	29	1.5	27	3	-
PACK/MATERIALS HANDL	929	80	4.0	51	29	-

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 25
continuedOCCUPATIONS OF THE INSURED UNEMPLOYED
LOWELL CETA

DECEMBER 1978

		ALL AGES NUMBER	PER.	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL
TOTAL		1997	100.0	1223	775	8
ARCHITECTURE	001	5	.3	-	5	-
ELECTRICAL ENG.	003	11	.6	11	-	-
CIVIL ENGINEERING	005	3	.2	3	-	-
MECHANICAL ENG.	007	5	.3	3	3	-
INDUSTRIAL ENG.	012	35	1.1	21	13	-
SURVEYING & RELATED	018	3	.2	3	-	-
ARCH./ENG. NEC	019	11	.6	5	5	-
MATHEMATICS	020	8	.4	8	-	-
MATH, PHY, SCI. NEC	029	5	.3	5	-	-
PSYCHOLOGY	045	8	.4	8	-	-
PHARMACY	074	5	.3	3	3	-
NURSING	075	11	.6	3	8	-
MED./DENTAL TECH.	078	5	.3	5	-	-
MED. & HEALTH, NEC	079	13	.7	8	5	-
COLLEGE/UNIVERSITY ED	090	3	.2	3	-	-
SECONDARY ED.	091	13	.7	11	3	-
PRIMARY SCHOOL ED	092	19	1.0	16	3	-

TABLE 25
continuedOCCUPATIONS OF THE INSURED UNEMPLOYED
LOWELL CETA

DECEMBER 1978

		ALL AGES NUMBER	PER,	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL
TOTAL		1997	100.0	1223	775	8
LIBRARY WORK	100	3	.2	-	3	-
LEGAL WORK	110	13	.5	8	5	-
LAW/JURISPRUDENCE NEC	119	8	.4	5	3	-
RELIG/THEOLOGY, NEC	129	3	.2	-	3	-
INTERPRET/TRANSLATING	137	5	.3	3	3	-
ART WORK, NEC	149	3	.2	3	-	-

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 26

AGE AND AVERAGE WEEKLY EARNINGS OF THE INSURED UNEMPLOYED
LOWELL CETA

DECEMBER 1978

	TOTAL		MALES		FEMALES	
	NUMBER	PER.	NUMBER	PER.	NUMBER	PER.
TOTAL	2005	100.0	1188	100.0	817	100.0
AGE GROUPS						
TOTAL	1997	99.6	1180	99.3	817	100.0
UNDER 20	-	-	-	-	-	-
UNDER 25	381	19.0	244	20.5	137	16.8
25 - 34	557	27.8	340	28.6	217	26.6
35 - 44	285	14.2	143	12.0	142	17.4
45 - 54	351	17.5	204	17.2	147	18.0
55 - 64	263	13.1	142	12.0	121	14.8
65 & OVER	161	8.0	107	9.0	54	6.6
WEEKLY EARN.						
TOTAL	2000	99.8	1185	99.7	815	99.8
UNDER \$100	228	11.4	64	5.4	163	20.0
\$100-\$149	450	22.4	220	18.5	230	28.2
\$150-\$199	683	34.1	426	35.9	257	31.5
\$200-\$249	234	11.7	134	11.3	99	12.1
\$250-\$299	172	8.6	121	10.2	51	6.2
\$300 +	233	11.6	220	18.5	13	1.6

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 25A

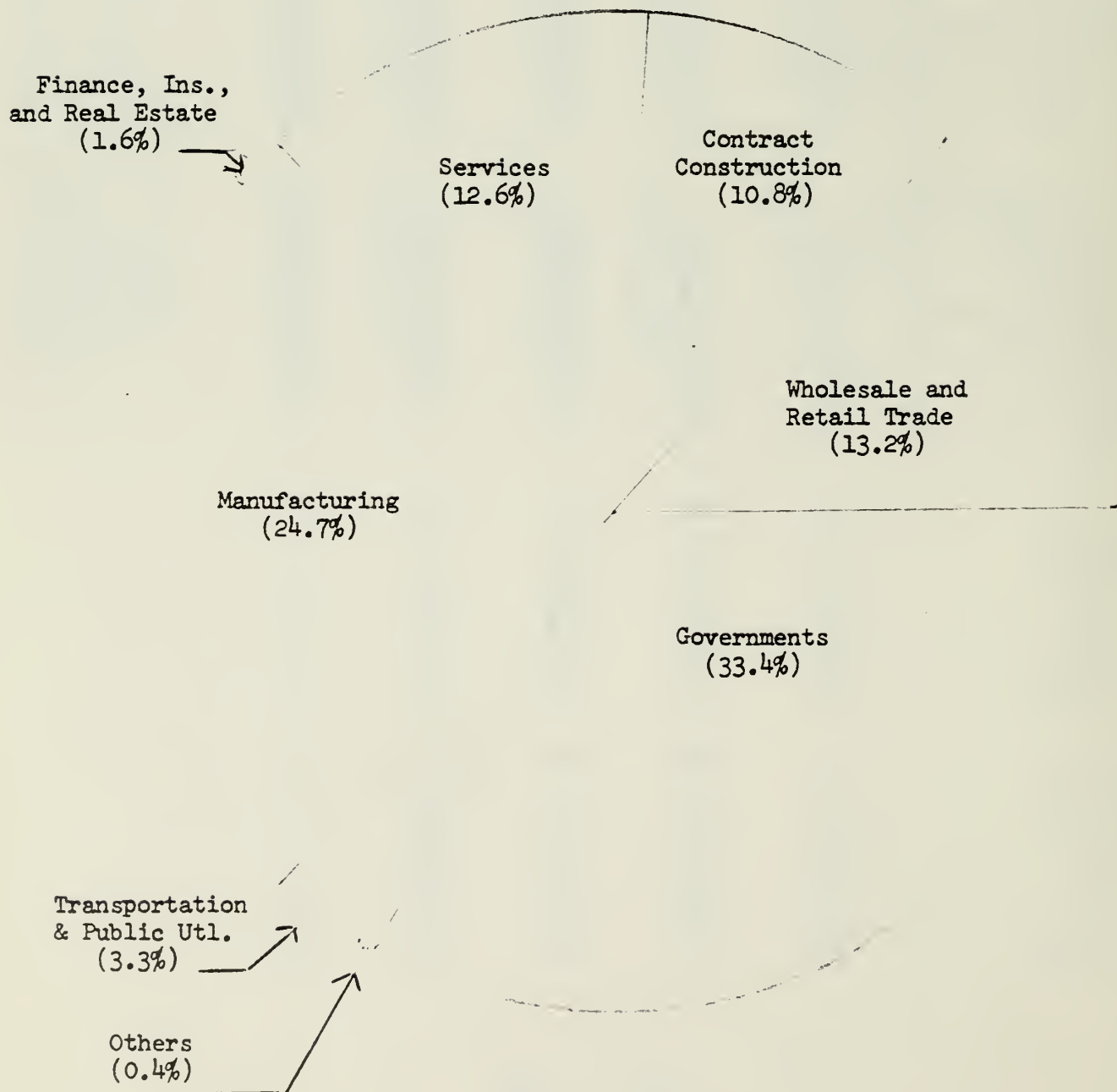
DURATION MOST RECENT SPELL (ALL PROGRAMS)
LOWELL CETA

DECEMBER 1978

	TOTAL	0-4 WEEKS	5-14 WEEKS	15-26 WEEKS	27+ WEEKS
TOTAL	2005	421	896	576	113
OCCUPATION					
PROF, TECH, MGT	367	67	169	107	24
CLERICAL/SALES	466	72	241	115	38
SERVICES	150	13	72	51	13
FARM, FISH, FURS	40	8	16	16	-
PROCESSING	29	5	19	5	-
MACHINE TRADES	139	35	62	38	5
BENCH WORK	193	54	76	51	13
STRUCTURAL	378	115	158	102	3
MISC. WORK	241	51	83	91	16
I.N.A.	-	-	-	-	-
INDUSTRY ATTACH.					
MANUFACTURING	496	129	223	115	29
CONSTRUCTION	217	86	99	29	3
TRANS/UTIL	64	13	24	27	-
WHOL/RET/TRADE	265	46	113	67	40
FIN/INS/R.E.	32	3	16	13	-
SERVICES	252	43	113	75	21
GOVERNMENTS	670	99	306	249	16
OTHERS	8	3	3	-	3
I.N.A.	-	-	-	-	-
MALES	1180	268	512	340	59
UNDER 20	-	-	-	-	-
UNDER 25	244	54	134	51	5
25 - 34	340	88	129	107	16
35 - 44	143	40	49	46	8
45 - 54	204	40	113	43	8
55 - 64	142	35	48	40	19
65 & OVER	107	11	40	54	3
FEMALES	817	153	381	236	48
UNDER 20	-	-	-	-	-
UNDER 25	137	24	67	46	-
25 - 34	217	46	88	75	8
35 - 44	142	19	72	48	3
45 - 54	147	32	80	24	11
55 - 64	121	27	54	27	13
65 & OVER	54	5	19	16	13

Table 28

Benefit Payments by Industry
Lowell Labor Market Area
December 1978



VII. Labor Supply/Demand Imbalances

Job openings that are listed with the Division of Employment Security to be filled are compiled into regional Job Bank listings. Lowell LMA job openings can be found in the Lawrence Job Bank printout. Tables 29, 30 and 31 provide information concerning the Lawrence Job Bank openings. For the month of March 1979, there were 4,041 openings listed with the Lawrence Job Bank for the northeastern Massachusetts area. The largest number of openings (854) were in the clerical and sales occupations with professional, technical and managerial occupations having the next largest available openings with 733 listed. Table 29 shows that 57.3 percent of the 4,041 openings are unfilled at the end of the month. Unfilled job openings are those job orders given by employers which at the time of the count (the last working day of each month) remain unfilled because of inability to locate applicants who meet the job specifications; a shortage of applicants; or because working conditions, plant locations, hours or wages offered make such openings hard-to-fill. In addition, some job orders may have been given to the Employment Service so close to the time of count that there was insufficient opportunity to fill the opening.

Tables 32 and 33 show the relationship between applicants and job openings by occupation.

Table 29
 -ES JOB BANK OPENINGS IN REPORTING DISTRICTS
 BY OCCUPATIONAL CATEGORY
 LAWRENCE
 MASSACHUSETTS
 MARCH, 1979

OCCUPATIONAL CATEGORY	OPENINGS AVAILABLE		AVERAGE PAY		OPENINGS UNFILLED AT MONTH END		UNFILLED 30 DAYS OR MORE	
	CURRENT	LAST MONTH	CURRENT	LAST MONTH	CURRENT	LAST MONTH	CURRENT	LAST MONTH
TOTAL, ALL OCCUPATIONS	4,041	INA	\$ 8,152/YR*	INA	2,314	INA	1,000	INA
PROFESSIONAL, TECHNICAL, AND MANAGERIAL	733	INA	9,394/YR*	INA	504	INA	239	INA
CLERICAL AND SALES	854	INA	7,594/YR*	INA	558	INA	237	INA
SERVICE	577	INA	3.57/HR*	INA	351	INA	110	INA
FARMING, FISHERY, FORESTRY, AND RELATED	108	INA	3.91/HR*	INA	48	INA	9	INA
PROCESSING	100	INA	3.74/HR*	INA	63	INA	40	INA
MACHINE TRADES	306	INA	3.90/HR*	INA	161	INA	113	INA
BENCH WORK	247	INA	3.36/HR*	INA	101	INA	51	INA
STRUCTURAL WORK	693	INA	4.36/HR*	INA	339	INA	150	INA
MISCELLANEOUS	421	INA	3.53/HR*	INA	189	INA	51	INA

-ES JOB BANK OPENINGS IN REPORTING DISTRICTS
AND PERCENT DISTRIBUTION OF JOB BANK OPENINGS BY SELECTED INDUSTRY GROUP
LAWRENCE MASSACHUSETTS
MARCH, 1979

SELECTED INDUSTRY GROUP	OPENINGS AVAILABLE		OPENINGS UNFILLED		30 DAYS OR MORE	PERCENT DISTRIBUTION OF OPENINGS	
	TOTAL	TOTAL	TOTAL	UNFILLED		AVAILABLE	UNFILLED
TOTAL OPENINGS, ALL INDUSTRIES	4,041	2,314	1,000	43.22%	100.00%	100.00%	100.00%
TOTAL AGRICULTURE, FORESTRY, AND FISHING (01-09)	35	18	3	16.67%	.87%	.78%	.30%
AGRICULTURAL PRODUCTION--CROPS (01)	11	6	3	50.00%	31.43%	33.33%	100.00%
AGRICULTURAL SERVICES (07)	18	11	0	.00%	51.43%	61.11%	.00%
FORESTRY (08)	5	0	0	.00%	14.29%	.00%	.00%
FISHING, HUNTING, AND TRAPPING (09)	1	1	0	.00%	2.86%	5.56%	.00%
TOTAL CONSTRUCTION (15-17)	88	47	16	34.04%	2.16%	2.03%	1.50%
BLDG. CONST.-GEN. CONTR. & OPER. BLDG. (15)	23	14	7	50.00%	26.14%	29.79%	43.75%
CONST. OTHER THAN BLDG.-GEN. CONTRACT. (16)	9	5	0	.00%	10.23%	10.64%	.00%
CONSTRUCTION--SPECIAL TRADE CONTRACTORS(17)	56	28	9	32.14%	63.64%	59.57%	56.25%
TOTAL MANUFACTURING (20-39)	940	488	263	53.89%	23.26%	21.09%	26.30%
DURABLE GOODS (24,25,32-39)	459	245	129	52.65%	48.83%	50.20%	49.05%
LUMBER AND WOOD PROD., EXCEPT FURNITURE (24)	20	6	2	33.33%	4.36%	2.45%	1.55%
FURNITURE AND FIXTURES (25)	19	9	5	55.56%	4.14%	3.67%	3.88%
STONE, CLAY, GLASS, AND CONCRETE PROD. (32)	17	9	6	66.67%	3.70%	3.67%	4.65%
PRIMARY METAL INDUSTRIES (33)	11	4	1	25.00%	2.40%	1.63%	.78%
FAB. MET. PRO. EX. MACH. TRANS. EQUIP. (34)	68	31	12	38.71%	14.91%	12.65%	9.30%
MACHINERY, EXCEPT ELECTRICAL (35)	77	37	21	56.76%	16.78%	15.10%	16.28%
ELEC. AND ELEC. MACH. EQUIP., AND SUP. (36)	201	125	66	52.80%	43.79%	51.02%	51.16%
TRANSPORTATION EQUIPMENT (37)	16	7	6	85.71%	3.49%	2.86%	4.65%
INSTRUMENTS, OPTICAL GOODS, TIME PIECES(38)	20	11	7	63.64%	4.36%	4.49%	5.43%
MISCELLANEOUS MANUFACTURING INDUSTRIES (39)	10	6	3	50.00%	2.18%	2.45%	2.33%
NONDURABLE GOODS (20-23,26-31)	481	243	134	55.14%	51.17%	49.80%	50.95%
FOOD AND KINDRED PRODUCTS (20)	65	40	10	25.00%	13.51%	16.46%	17.46%
TEXTILE MILL PRODUCTS (22)	118	81	62	76.54%	24.53%	33.33%	46.27%
APPAREL AND OTHER FINISHED PROD., FAB. (23)	30	30	14	46.67%	12.47%	12.35%	10.45%
PAPER AND ALLIED PRODUCTS (26)	22	9	5	62.50%	4.57%	3.29%	3.73%
PRINTING, PUBLISHING, AND ALLIED IND. (27)	14	8	3	33.33%	2.91%	3.70%	2.24%
CHEMICALS AND ALLIED PRODUCTS (28)	28	16	9	31.25%	5.82%	6.58%	3.73%
RUBBER AND MISC. PLASTICS PRODUCTS (30)	53	23	5	39.13%	11.02%	9.47%	6.72%
LEATHER AND LEATHER PRODUCTS (31)	121	36	26	72.22%	25.16%	14.81%	19.40%
TOTAL TRANS., COMM., ELEC., GAS, SAN. SVC (40-49)	49	34	16	47.06%	1.21%	1.47%	1.60%
RAILROAD TRANSPORTATION (40)	4	4	0	.00%	8.16%	11.76%	.00%
LOCAL TRANSIT AND INTERURB. HIWAY TRANS(41)	7	5	1	20.00%	14.29%	14.71%	6.25%

Table 30 (continued)

TABLE-5--ES JOB BANK OPENINGS IN REPORTING DISTRICTS
AND PERCENT DISTRIBUTION OF JOB BANK OPENINGS BY SELECTED INDUSTRY GROUP
LAWRENCE MASSACHUSETTS
MARCH, 1979

PAGE 2

SELECTED INDUSTRY GROUP	OPENINGS AVAILABLE	TOTAL	OPENINGS UNFILLED	30 DAYS OR MORE	AS A % OF TOTAL UNFILLED	AVAILABLE	UNFILLED	PERCENT DISTRIBUTION OF OPENINGS	UNFILLED 30
TOTAL TRANS. COMM., ELEC., GAS, SAN. SVC (40-49)	21	14	8	57.14%	42.86%	41.18%	50.00%		
MOTOR FREIGHT TRANSPORT, AND WAREHOUS. (42)	2	2	0	100.00%	4.08%	5.88%	6.00%		
WATER TRANSPORTATION (44)	2	1	1	100.00%	4.08%	2.94%	6.25%		
TRANSPORTATION BY AIR (45)	3	1	0	100.00%	6.12%	2.94%	31.25%		
TRANSPORTATION SERVICES (47)	8	5	5	100.00%	16.33%	14.71%	6.25%		
COMMUNICATION (48)	2	2	1	50.00%	4.08%	5.88%			
ELECTRIC, GAS, AND SANITARY SERVICES (49)									
TOTAL WHOLESALE TRADE (50-51)	119	61	33	54.10%	2.94%	2.64%	3.30%		
WHOLESALE TRADE--DURABLE GOODS (50)	52	31	22	70.97%	43.70%	50.82%	66.67%		
WHOLESALE TRADE--NONDURABLE GOODS (51)	67	30	11	36.67%	56.30%	49.18%	33.33%		
TOTAL RETAIL TRADE (52-59)	352	197	63	31.82%	8.71%	8.56%	6.30%		
BLDG. MAT. HW, GAR. SUP. MOB. HM DEAL (52)	14	26	9	42.86%	3.98%	3.54%	4.76%		
GENERAL MERCHANDISE STORES (53)	31	12	5	34.62%	12.22%	13.13%	14.29%		
FOOD STORES (54)	67	35	15	41.67%	8.81%	6.04%	7.94%		
AUTOMOTIVE DEALERS AND GAS SVC. STATION (55)	17	11	5	42.86%	19.03%	17.88%	23.81%		
APPAREL AND ACCESSORY STORES (56)	29	7	4	45.45%	4.83%	5.56%	7.94%		
FURNITURE, HOME FUR. & EQUIP. STORES (57)	129	86	21	57.14%	8.24%	3.54%	6.35%		
EATING AND DRINKING PLACES (58)	22	14	1	26.42%	36.55%	43.43%	33.33%		
MISCELLANEOUS RETAIL (59)				7.14%	6.25%	7.07%	1.59%		
TOTAL FINANCE, INSURANCE, AND REAL ESTATE (60-67)	76	50	22	44.00%	1.88%	2.16%	2.20%		
BANKING (60)	34	22	12	54.55%	44.74%	44.00%	54.55%		
CREDIT AGENCIES OTHER THAN BANKS (61)	6	3	0	100.00%	7.89%	6.00%	18.18%		
INSURANCE (63)	11	7	4	57.14%	14.47%	14.00%	13.64%		
INSURANCE AGENTS, BROKERS, AND SERVICE (64)	5	4	3	75.00%	6.58%	8.00%	13.64%		
REAL ESTATE (65)	20	14	3	21.43%	26.32%	28.00%			
TOTAL SERVICES (70-89)	407	216	103	47.69%	10.07%	9.33%	10.30%		
HOTELS, ROOMING HOUSES, CAMPS AND REL. (70)	15	9	6	66.67%	3.69%	4.17%	5.83%		
PERSONAL SERVICES (72)	17	11	3	27.27%	4.18%	5.09%	2.91%		
BUSINESS SERVICES (73)	135	60	35	58.33%	33.17%	27.78%	33.98%		
AUTOMOTIVE REPAIR, SERVICES, & GARAGES (75)	36	19	7	38.84%	8.85%	8.80%	7.77%		
MISCELLANEOUS REPAIR SERVICES (76)	21	11	8	72.73%	5.16%	5.09%	1.94%		
AMUSEMENT AND RECR. SVC. EXCEPT MOVIES (79)	4	4	2	50.00%	37.04%	1.85%	19.42%		
HEALTH SERVICES (80)	97	54	20	37.04%	23.83%	25.00%	1.94%		
LEGAL SERVICES (81)	5	2	2	100.00%	1.23%	.93%	1.94%		
EDUCATIONAL SERVICES (82)	20	9	2	22.22%	4.91%	4.17%	1.94%		
SOCIAL SERVICES (83)	19	12	0	50.00%	4.67%	5.56%	5.00%		
MUSEUMS, GALLERIES, BOTAN. GARDENS, ZOOS (84)	2	1	0	100.00%	.49%	.46%			

Table 30 (continued)

TABLE 5--ES JOB BANK OPENINGS IN REPORTING DISTRICTS
AND PERCENT DISTRIBUTION OF JOB BANK OPENINGS BY SELECTED INDUSTRY GROUP
LAURENCE MASSACHUSETTS
MARCH, 1979

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SELECTED INDUSTRY GROUP	OPENINGS AVAILABLE	OPENINGS UNFILLED 30 DAYS OR MORE	AS A % OF TOTAL UNFILLED	AVAILABLE	UNFILLED	PERCENT DISTRIBUTION OF OPENINGS
TOTAL SERVICES (70-89)	16	7	1	14.29%	3.93%	3.24%
MEMBERSHIP ORGANIZATIONS (86)	5	5	2	40.00%	1.23%	2.31%
PRIVATE HOUSEHOLDS (88)	15	12	9	75.00%	3.69%	5.56%
MISCELLANEOUS SERVICES (89)						
TOTAL PUBLIC ADMINISTRATION (91-97)	1,969	1,201	481	40.05%	48.73%	51.90%
EXEC., LEGIS. AND GENL GOVMT, EXC FIN. (91)	2	1	1	100.00%	.10%	.08%
JUSTICE, PUBLIC ORDER, AND SAFETY (92)	5	0	0	.00%	.25%	.00%
PUBLIC FINANCE, TAX, AND MONETARY POLICY (93)	1	0	0	.00%	.05%	.00%
ADMINISTRATION OF HUMAN RESOURCES PGMS. (94)	1,953	1,198	479	39.98%	99.19%	99.75%
ADMIN. OF ENVIR. QUAL. & HOUSING PGMS. (95)	3	1	1	100.00%	.25%	.08%
ADMINISTRATION OF ECONOMIC PROGRAMS (96)			0	.00%	.15%	.08%
TOTAL NONCLASSIFIABLE ESTABLISHMENTS (99)	6	1	0	.00%	.15%	.04%
NONCLASSIFIABLE ESTABLISHMENTS (99)	6	1	0	.00%	100.00%	100.00%
		</				

Table 31

-TOTAL ES JOB BANK OPENINGS AND AVERAGE PAY
BY SELECTED INDUSTRY GROUP
LAWRENCE
MASSACHUSETTS
MARCH, 1979

PAGE 1

SELECTED INDUSTRY GROUP	OPENINGS AVAILABLE TOTAL	AVERAGE PAY	OPENINGS UNFILLED TOTAL	AVERAGE PAY	OPENINGS UNFILLED 30 DAYS TOTAL	AVERAGE PAY
TOTAL OPENINGS, ALL INDUSTRIES	4,041	\$ 8,152	2,314	\$ 8,249	1,000	\$ 8,424
TOTAL AGRICULTURE, FORESTRY, AND FISHING (01-09)						
AGRICULTURAL PRODUCTION--CROPS (01)	35	7,092	18	7,549	3	8,320
AGRICULTURAL SERVICES (07)	11	7,034	6	7,453	3	8,320
FORESTRY (08)	18	7,095	11	7,280	0	0
FISHING, HUNTING, AND TRAPPING (09)	5	6,240	0	0	0	0
	1	11,078	1	11,078	0	0
TOTAL CONSTRUCTION (15-17)						
BLDG. CONST.-GEN. CONTR. & OPER. BLDG. (15)	88	10,070	47	10,568	16	10,407
CONST. OTHER THAN BLDG.-GEN. CONTRACT. (16)	23	9,093	14	9,219	17	8,335
CONSTRUCTION--SPECIAL TRADE CONTRACTORS (17)	9	12,149	5	11,544	0	0
	56	10,136	28	11,039	9	12,018
TOTAL MANUFACTURING (20-39)						
DURABLE GOODS (24, 25, 32-39)	940	7,619	488	7,872	263	7,995
LUMBER AND WOOD PROD., EXCEPT FURNITURE (24)	459	7,945	245	8,166	129	8,527
FURNITURE AND FIXTURES (25)	20	7,449	6	9,490	2	14,950
STONE, CLAY, GLASS, AND CONCRETE PROD. (32)	19	7,679	9	8,073	5	9,110
PRIMARY METAL INDUSTRIES (33)	17	8,110	9	8,909	6	6,965
FAB. TEXT. PRO. EX. MACH. & TRANS. EQUIP. (34)	11	7,849	4	7,935	1	8,320
MACHINERY, EXCEPT ELECTRICAL (35)	63	8,071	31	8,028	12	8,882
ELEC. AND ELEC. MACH. EQUIP. AND SUP. (36)	77	9,772	37	11,253	21	12,821
TRANSPORTATION EQUIPMENT (37)	201	7,052	125	7,102	66	8,810
INSTRUMENTS, OPTICAL GOODS, TIME PIECES (38)	16	9,920	7	9,098	6	8,258
MISCELLANEOUS MANUFACTURING INDUSTRIES (39)	20	8,773	11	8,909	7	10,360
	10	7,623	6	8,025	3	9,013
NONDURABLE GOODS (20-23, 26-31)	481	7,303	243	7,574	134	7,476
FOOD AND KINDRED PRODUCTS (20)	65	8,387	40	8,133	10	8,049
TEXTILE MILL PRODUCTS (22)	118	7,493	81	7,589	10	7,694
APPAREL AND OTHER FINISHED PROD., FAB. (23)	60	6,772	30	7,075	14	7,362
PAPER AND ALLIED PRODUCTS (26)	22	8,126	8	9,083	5	10,456
PRINTING, PUBLISHING, AND ALLIED IND. (27)	14	7,471	9	7,892	3	7,169
CHEMICALS AND ALLIED PRODUCTS (28)	28	7,545	16	7,094	5	7,205
RUBBER AND MISC. PLASTICS PRODUCTS (30)	53	7,663	23	8,599	9	7,211
LEATHER AND LEATHER PRODUCTS (31)	121	6,513	36	6,555	26	6,448
TOTAL TRANS., COMM., ELEC., GAS, SAN. SVC (40-49)						
RAILROAD TRANSPORTATION (40)	49	8,973	34	9,249	16	8,380
LOCAL TRANSIT AND INTERURB. HIGHWAY TRANS (41)	4	15,808	4	15,808	0	0
MOTOR FREIGHT TRANSPORT. AND WAREHOUSE. (42)	7	9,308	5	7,696	1	9,360
	21	8,981	14	8,531	8	8,481

Table 31 (continued)
TABLE 6--TOTAL ES JOB BANK OPENINGS AND AVERAGE PAY
BY SELECTED INDUSTRY GROUP
LAWRENCE MASSACHUSETTS
MARCH, 1979

PAGE 2

SELECTED INDUSTRY GROUP	OPENINGS AVAILABLE TOTAL	AVERAGE PAY	OPENINGS UNFILLED TOTAL	AVERAGE PAY	OPENINGS UNFILLED 30 DAYS TOTAL	AVERAGE PAY
TOTAL TRANS., COMM., ELEC., GAS, SAN. SVC (40-49)	2	\$ 7,280	2	\$ 7,280	0	\$ 7,280
WATER TRANSPORTATION (44)	2	6,750	1	7,280	1	7,280
TRANSPORTATION BY AIR (45)	3	6,933	1	8,320	0	8,320
TRANSPORTATION SERVICES (47)	8	7,628	5	8,502	5	8,502
COMMUNICATION (48)	2	6,916	2	6,916	1	7,280
ELECTRIC, GAS, AND SANITARY SERVICES (49)						
TOTAL WHOLESALE TRADE (50-51)	119	7,686	61	8,170	33	8,899
WHOLESALE TRADE--DURABLE GOODS (50)	52	7,813	31	8,217	22	8,498
WHOLESALE TRADE--NONDURABLE GOODS (51)	67	7,538	30	8,121	11	9,700
TOTAL RETAIL TRADE (52-59)	352	7,026	198	6,809	63	6,818
BLDG. MAT., HM, GAR. SUP., MOB. HM. DEAL (52)	14	7,213	7	6,582	3	6,344
GENERAL MERCHANDISE STORES (53)	43	6,590	26	6,379	9	6,344
FOOD STORES (54)	31	7,512	12	7,146	5	6,833
AUTOMOTIVE DEALERS AND GAS SVC. STATION (55)	67	7,144	35	6,680	15	6,329
APPAREL AND ACCESSORY STORES (56)	17	7,044	11	7,379	5	6,943
FURNITURE, HOME FUR. & EQUIP. STORES (57)	29	7,316	17	7,874	4	7,410
EATING AND DRINKING PLACES (58)	129	6,854	86	6,647	21	7,071
MISCELLANEOUS RETAIL (59)	22	7,151	14	7,530	1	10,400
TOTAL FINANCE, INSURANCE, AND REAL ESTATE (60-67)	76	7,353	50	7,383	22	7,707
BANKING (60)	34	7,153	22	7,299	12	7,538
CREDIT AGENCIES OTHER THAN BANKS (61)	6	8,689	3	7,038	0	8,320
INSURANCE (63)	11	7,849	7	8,538	4	8,530
INSURANCE AGENTS, BROKERS, AND SERVICE (64)	5	7,582	4	7,956	3	6,691
REAL ESTATE (65)	20	7,042	14	6,837	3	7,816
TOTAL SERVICES (70-89)	407	7,484	216	7,601	103	7,816
HOTELS, ROOMING HOUSES, CAMPS AND REL. (70)	15	6,607	9	6,795	6	6,899
PERSONAL SERVICES (72)	17	7,120	11	7,032	3	7,107
BUSINESS SERVICES (73)	135	7,120	60	7,205	35	7,339
AUTOMOTIVE REPAIR, SERVICES, & GARAGES (75)	36	7,772	19	7,054	7	7,859
MISCELLANEOUS REPAIR SERVICES (76)	21	9,271	11	11,440	8	10,985
AMUSEMENT AND RECR. SVC. EXCEPT MOVIES (79)	4	6,656	4	6,656	2	8,053
HEALTH SERVICES (80)	97	7,224	54	7,503	20	7,930
LEGAL SERVICES (81)	5	7,436	2	7,930	2	6,760
EDUCATIONAL SERVICES (82)	20	8,045	9	7,396	2	7,384
SOCIAL SERVICES (83)	19	8,106	12	8,055	6	8,700
MUSEUMS, GALLERIES, BOTAN. GARDENS, ZOOS (84)	2	7,375	1	6,032	0	7,384
MEMBERSHIP ORGANIZATIONS (86)	16	8,677	7	9,183	1	8,700
PRIVATE HOUSEHOLDS (88)	5	6,157	5	6,157	2	6,240

Table 31 (continued)

TABLE 31--TOTAL ES JOB BANK OPENINGS AND AVERAGE PAY
BY SELECTED INDUSTRY GROUP
LAURENCE, MASSACHUSETTS
MARCH, 1979

		OPENINGS AVAILABLE		OPENINGS UNFILLED		OPENINGS UNFILLED 30 DAYS	
		TOTAL	AVERAGE PAY	TOTAL	AVERAGE PAY	TOTAL	AVERAGE PAY
SELECTED INDUSTRY GROUP							
TOTAL SERVICES (70-89)		15	\$ 8,704	12	\$ 8,247	9	\$ 7,919
MISCELLANEOUS SERVICES (89)							
TOTAL PUBLIC ADMINISTRATION (91-97)		1,969	8,702	1,201	8,667	431	8,914
EXEC. LEGIS. AND GENL GOVMT. EXC FIN. (91)		2	10,512	1	11,924	1	11,924
JUSTICE, PUBLIC ORDER, AND SAFETY (92)		3	8,513	0	0	0	0
PUBLIC FINANCE, TAX, AND MONETARY POLICY (93)		1	7,072	0	0	0	0
ADMINISTRATION OF HUMAN RESOURCES FGMS. (94)		1,953	8,698	1,198	8,662	479	8,903
ADMIN. OF ENVIR. QUAL. & HOUSING FGMS. (95)		3	8,738	1	11,078	1	11,078
ADMINISTRATION OF ECONOMIC PROGRAMS (96)		3	10,807	1	9,710	0	0
TOTAL NONCLASSIFIABLE ESTABLISHMENTS (99)		6	6,973	1	6,786	0	0
NONCLASSIFIABLE ESTABLISHMENTS (99)		6	6,973	1	6,786	0	0

Table 32
Active Applicants
and
Available Job Openings*
March 1979

Occupations	Active Applicants Lowell ESARS	Openings Lawrence Job Bank**	Openings Lowell LMA	Ratio of Active Applicants to Lowell LMA Openings
TOTAL***	5,091	4,041	2,655	1.9:1
Professional, Technical, Managerial	470	733	261	1.8:1
Clerical and Sales	925	854	499	1.9:1
Services	683	577	427	1.6:1
Farming, Fishery, Forestry	102	108	12	8.5:1
Processing	102	100	82	1.2:1
Machine Trades	367	308	290	1.3:1
Benchwork	568	247	237	2.4:1
Structural	688	693	479	1.4:1
Miscellaneous	581	421	309	1.9:1

* Source: March 1979 ESARS, Table 96.

** Source: March 1979 Job Bank(Covers State Northeast Region)

*** May not total because of some invalid occupational codes.

Table 33
Ranking of Active Applicants, Claimants
Job Openings and Jobs Filled by Occupation

Lowell LMA

October 1, 1978-March 31, 1979

	Rank as * Percentage of Job Applicants in Active File	Rank as ** Percentage of Insured Unemployed on Unemployment Compensation	*** Rank as Percentage of Job Vacancies Listed	# Rank as Percentage of Mandatory Listings (Federal Government Contractors)	Rank as ## Percentage of Total Job Vacancies Filled	Rank as ϕ Percentage of Job Vacancies in Occupational Field Filled
Professional, Technical Managerial	6	3	6	6	5	2
Clerical and Sales	1	1	1	1	2	6
Services	3	6	3	7	3	4
Farming, Fishing, Forestry	8	8	9	9	8	9
Processing	9	9	8	8	9	8
Machine Trades	7	7	5	4	7	7
Bench Work	5	5	7	3	6	5
Structural Work	2	2	2	5	1	1
Miscellaneous	4	4	4	2	4	3

* March 1979 ESARS Table 96
 ** DES Selected Characteristics of Insured Unemployed
 *** March 1979 ESARS Table B07
 # March 1979 ESARS Table C07
 ## March 1979 ESARS Table B07
 ϕ March 1979 ESARS Table A07

VIII. CETA Activities and The Need For Manpower Services

Persons with low skills and educational levels are always in need of manpower services. Persons out of work, some of them middle-aged and displaced due to a decline or change in the technology of the industry in which they were employed will need specialized employment and training services.

The economically disadvantaged are defined as members of families which receive cash welfare payments or those whose annual income in relation to family size and location does not exceed that outlined in Table 34.

The Comprehensive Employment and Training Act provides job training and employment opportunities for economically disadvantaged, unemployed and underemployed persons and assumes that training and other services lead to maximum employment opportunities which will enhance self-sufficiency. CETA offers a number of types of opportunities. Title II BC provides classroom training, OJT work experiences and educational services to economically disadvantaged individuals. Title II D and Title VI are Public Service Employment (PSE) Programs. Title VI provides counter-cyclical employment during periods of high unemployment. Title III STIP is a National Program to provide veterans with advanced skill training. Title IV is the youth program and participants must be between the ages of 14 and 22, be either unemployed or in-school, and be economically disadvantaged. Tables 35,36,38 and 39 show data concerning the Lowell Consortium programs for the period October 1978 through March 1979.

The Work Incentive Program (WIN) was enacted to aid families receiving AFDC (Aid to Families with Dependent Children) payments to obtain gainful employment or training that would lead to gainful employment. Characteristic of WIN applicants during the same period is provided in Table 37.

There are over 9,000 individuals employed only part-time for economic reasons in the Lowell LMA and over 15,000 economically disadvantaged persons 18 years and over as shown in Table 40.

Table 41 outlines characteristics of job applicants in the Lowell Placement Office as obtained from the Employment Service Automated Reporting System (ESARS). There were 5,156 active applicants on file as of March 31, 1979. Some 2,721 (52.8 percent) were female; 1,866 were in age group 30-44; some 2,106 had achieved a high school (or equivalency) educational level; and 3.9 percent were Vietnam Era Veterans.

TITLE II B

- Formerly known as Title I.
Services include: Classroom training, work experience, OJT, and services to participants (counseling, supportive services, etc.)

ELIGIBILITY FOR PARTICIPATION IN TITLE II B

1. United States citizen or alien who is permitted to accept permanent employment by Immigration and Naturalization Service; and
2. Economically disadvantaged; and
3. Unemployed, or
Underemployed, or
In-School Youth

TITLE II C

- New Programs: Upgrading and Retraining Programs designed to offer additional opportunities to those locked into low paying, low-skill, dead-end jobs.
Services include: classroom training, OJT, supportive services.

ELIGIBILITY FOR PARTICIPATION IN TITLE II C UPGRADING

1. United States citizen or alien who is permitted to accept permanent employment by Immigration and Naturalization Service; and
2. Operating at less than full skill potential; and
3. Working for at least the prior six months with the same employer in an entry level, unskilled or semi-skilled position, or a position with little or no advancement opportunity in a normal promotional line.

ELIGIBILITY FOR PARTICIPATION IN TITLE II C RETRAINING

1. United States citizen or alien who is permitted to accept permanent employment by Immigration and Naturalization Service; and
2. Have received a bona fide notice of impending layoff within the last six months; and
3. Have been determined by Prime Sponsor as having little opportunity to be reemployed in same or equivalent occupation or skill level within the labor market area.

TITLE II D PSE - Formerly known as Title II - PSE

Services include: public service employment, classroom training, and services to participants (counseling, job development, etc.)

ELIGIBILITY FOR PARTICIPATION IN TITLE II D PSE

1. United States citizen or alien who is permitted to accept permanent employment by Immigration and Naturalization Service; and
2. A resident of the prime sponsor's jurisdiction; and
3. Economically disadvantaged, unemployed at time of enrollment, and unemployed during 15 of the past 20 weeks, or

A member of a family which is receiving Public Assistance; and

4. Not have voluntarily terminated, without good cause, last full-time employment during past six months.

TITLE IV A - Formerly known as Title III C.

Programs for youth under Youth Community Conservation and Improvement Projects (YCCIP) and Youth Employment and Training Programs (YETP) are designed to provide classroom training, OJT, work experience and services to participants.

ELIGIBILITY FOR PARTICIPATION IN YCCIP

1. United States citizen or alien who is permitted to accept permanent employment by Immigration and Naturalization Service; and
2. Aged 16 through 19 years, inclusive; and
3. Unemployed; and
4. Economically disadvantaged; and
5. Has not had previous enrollments in YCCIP exceeding 12 months.

ELIGIBILITY FOR PARTICIPATION IN YETP

1. United States citizen or alien who is permitted to accept permanent employment by Immigration and Naturalization Service; and

2. Aged 16 through 21 years inclusive; and
3. A member of a family with total family income at or below 85 percent of lower living standard income level; and
4. Unemployed; or
Underemployed; or
In School

TITLE IV C - Summer Youth Employment Program
Services include: work experience, remedial education, assessment, classroom training and services to participants.

ELIGIBILITY FOR PARTICIPATION IN SUMMER YOUTH EMPLOYMENT PROGRAM

1. United States citizen or alien who is permitted to accept permanent employment by Immigration and Naturalization service; and
2. Economically Disadvantaged; and
3. Aged 14 through 21 years, inclusive.

TITLE VI PSE - Formerly called Titles VI and VI B
Services include: public service employment, training, and services to participants (counseling, job development etc.)

ELIGIBILITY FOR PARTICIPATION IN TITLE VI PSE

1. United States citizen or alien who is permitted to accept permanent employment by Immigration and Naturalization Service; and
2. Resident of the prime sponsor's jurisdiction; and
3. A member of family which has been receiving Public Assistance for ten of the last twelve weeks; or
Unemployed at time of enrollment; and
Unemployed at least 10 out of 12 weeks prior to enrollment; and
Have a family income which does not exceed 100% of the lower living standard income level based on the three months prior to application.
4. Not have voluntarily terminated, without good cause, last full-time employment during past six months.

Table 34
Poverty Income Guidelines
1979

Size Of Family Unit	Nonfarm Family	Farm Family
1	\$3,400	\$2,910
2	4,500	3,840
3	5,600	4,770
4	6,700	5,700
5	7,800	6,630
6	8,900	7,560

Source: U. S. Department of Labor
Employment and Training Administration

For family units with more than six members, add \$1,020 for each additional member in a nonfarm family and \$860 for each additional member in a farm family.

Table 35
Enrollment in CETA Program Activities
Lowell Consortium
Year-to-Date
March 1979

	Actual	Plan	Percent Of Plan
<u>Title II BC</u>			
Classroom Training			
Prime Sponsor	165	202	82
Vocational Education	73	90	81
On-the-job-training	188	326	58
Work Experience	466	418	111
<u>Title II D</u>			
Public Service Employment	502	434	115
<u>Title III STIP</u>			
Classroom Training			
Prime Sponsor	23	28	82
On-the-job-training	9	12	75
<u>Title VI</u>			
Public Service Employment	1,184	1,140	104

Source: Lowell CETA Program Status Summary
March 1979

Table 36
Youth Program Status Summary
Lowell Consortium
March 1979

	Enrollment in Program Activities (Year-to-Date)		
	Actual	Plan	Percent Of Plan
<u>YCC IP</u>			
Work Experience	0	22	0
<u>YETP</u>			
Career Employment Experience	134	133	100
On-the-job-training	22	12	183
Classroom Training	52	76	68
Work Experience	30	64	47

Source: Lowell CETA, Program Status Summary
March 1979

Table 37
 Characteristics of Applicants in WIN
 From
 October 1979 to March 1979
 Lowell

	Number of Applicants	Percentage
TOTAL	1,927	100.0
Female	1,537	79.8
Under Age 20	129	6.7
30-39 years old	808	41.9
45 years or older	308	16.0
Hispanic	212	11.0
Veterans	110	5.7
Vietnam Veterans	17	0.9
12 or more years of schooling	809	42.0
Disadvantaged	1,922	99.7

Source: March 1979 ESARS, Table 06, LOFF 4109
 (Active file at end of period)

Table 38
Lowell CETA Program Status Summary
Grant Year-To-Date Plan
October 1, 1978-March 31, 1979

Significant Segments	Actual	Plan	Percent Of Plan
<u>Title II BC</u>			
Economically Disadvantaged	988	1,042	95
Female	484	594	81
Hispanic	235	242	97
Black	59	73	81
Vietnam Era Veterans	30	24	125
Special Veterans	3	12	25
Disabled Veterans	5	6	83
Handicapped	86	121	71
Offenders	82	85	96
Public Assistance	158	182	87

<u>Title II D</u>			
Economically Disadvantaged	384	380	101
Female	197	172	102
Black	9	17	53
AFDC	54	65	83
Public Assistance	15	54	28
Veterans	105	148	71
Disabled Veterans	7	9	78
Vietnam Era Veterans	27	23	117
Special Veterans	11	9	123
Hispanic	18	26	69

<u>Title III STIP</u>			
Female	2	6	33
Economically Disabled	21	26	81
Long-term Unemployed	9	15	60

<u>Title VI</u>			
Female	347	352	99
Black	23	30	77
Hispanic	50	58	86
Veterans	290	342	85
Disabled Veterans	17	17	100
Special Veterans	36	32	113
Vietnam Veterans	63	70	90
AFDC	141	138	102

Source: Lowell CETA, Program Status Summary March 1979

Table 39
Youth Program Status Summary
Lowell Consortium
October 1, 1978-March 31, 1979

Significant Segments	Grant Year-to date		
	Plan		Percent
	Actual	Plan	Of Plan
<u>YCCIP</u>			
Economically Disadvantaged	0	19	0
Female	0	11	0
Black	0	1	0
Spanish	0	2	0
High School Dropout	0	17	0
<u>YETP</u>			
Economically Disadvantaged	147	161	91
Female	74	95	78
Spanish	10	12	83
Black	2	6	33
Offenders	6	17	35
High School Dropouts	52	69	75
Handicapped	1	2	50

Source: Lowell CETA Program
Status Summary, March 1979

Table 40
Additional Planning Data Projections
Fiscal Year 1980
Lowell LMA

	Employed Part-time For Economic Reasons		
	Total	Male	Female
TOTAL	9,304	4,060	5,244
White	9,119	3,993	5,126
Nonwhite	185	67	118

Economically Disadvantaged 18 Years and Over	
TOTAL	15,035
White	14,542
Nonwhite	493

Source: U. S. Department of Labor, Employment and Training Administration, "Labor Market Information Guidelines" Chapter III, methodology using Lawrence/Berkeley Projections.

Table 41
Applicants Registered
Lowell Employment Office
March 31, 1979

Characteristics of Applicants	Active File End of Period
Age - all ages	5,156
Under 20 years	501
20-21	411
22-24	651
25-29	839
30-39	1,399
40-44	467
45-54	613
55-64	243
65 years or older	32
Sex	
Men	2,435
Women	2,721
Highest Grade of School Completed	
0-7	343
8-11	1,940
12	2,106
Over 12 years	767
Handicapped	355
Welfare	2,109
Ethnic Group	
White (not Hispanic)	4,714
Black (not Hispanic)	78
Hispanic	344
Economically Disadvantaged	2,527
Vietnam Era Veteran	201

Source: ESARS, Table 06, March 1979

A P P E N D I X

IX Appendix

The following ESARS tables have been enclosed to focus on the characteristics of applicants registered in the Lowell Employment Service offices for October 1978 through March 1979. Table 96, which lists the occupational attachment of applicants, gives only the respective DOT codes. Enclosed after the table is the DOT code listing with the compatible occupational title.

For further assistance contact the Research Library,
Division of Employment Security
Charles F. Hurley Building
Boston, Massachusetts 02114

TABLE 03 ALL INDIVIDUALS
PLACEMENT AND REFERRAL OF INDIVIDUALS

MASSACHUSETTS

SMSA 4560

TABLE 03

ITEM NO	CHARACTERISTICS OF APPLICANTS	TOTAL APPS PLACED	INDIVIDUALS PLACED										TOTAL	INDIVIDUALS REFERRED TO JOB	PLACE-MENT RESULT OF JOB	INDIVID FOR WHO JOB DEV CONTACTS WERE MADE
			NONAGRICULTURAL					AGRICULTURAL								
			TOTAL	OVER 3 DAYS	OVER 150 DAYS	OVER 3 DAYS OR LESS	TOTAL	OVER 3 DAYS	OVER 150 DAYS	OVER 3 DAYS OR LESS		L	M	N	O	
A	B	C	D	E	F	G	H	I	J	K						
03010	AGE	1516	1515	1512	1363	7	1	1	0	0	0	2622	2621	247	890	
03015	15 AND UNDER	27	27	27	0	0	0	0	0	0	0	28	28	0	2	
03020	16-17	85	84	64	57	1	1	1	0	0	0	140	140	10	66	
03025	18-19	242	242	241	210	2	0	0	0	0	0	391	391	36	111	
03030	20-21	203	203	203	194	0	0	0	0	0	0	361	360	31	115	
03035	22-24	244	244	244	232	0	0	0	0	0	0	432	432	45	140	
03040	25-29	217	217	217	201	1	0	0	0	0	0	392	392	45	156	
03045	30-34	134	134	134	127	0	0	0	0	0	0	243	243	28	90	
03050	35-39	88	88	88	83	1	0	0	0	0	0	160	160	20	65	
03055	40-44	71	71	71	68	0	0	0	0	0	0	137	137	13	38	
03060	45-54	112	112	110	107	2	0	0	0	0	0	199	199	13	71	
03065	55-64	81	81	81	77	0	0	0	0	0	0	121	121	5	33	
03070	65 AND OVER	7	7	7	7	0	0	0	0	0	0	18	18	1	3	
03075	SEX	1516	1515	1512	1363	7	1	1	0	0	0	2622	2621	247	890	
03080	MALE	967	966	965	895	4	1	1	0	0	0	1666	1665	150	505	
03085	FEMALE	549	549	547	468	3	0	0	0	0	0	956	956	97	385	
03090	HIGHEST SCHOOL GRADE	1516	1515	1512	1363	7	1	1	0	0	0	2622	2621	247	890	
03095	0-7	76	76	76	61	0	0	0	0	0	0	119	119	16	54	
03100	8-11	544	543	543	480	1	1	1	0	0	0	929	929	92	344	
03110	OVER 12	611	611	609	558	3	0	0	0	0	0	1080	1079	112	343	
03115	RESIDENCE	285	285	281	254	3	0	0	0	0	0	494	494	25	149	
03120	UPRAN	1516	1515	1512	1363	7	1	1	0	0	0	2622	2621	247	890	
03125	RURAL	1503	1502	1499	1350	7	1	1	0	0	0	2601	2600	243	879	
03130	RACE/ETHNIC	13	13	13	13	0	0	0	0	0	0	21	21	4	11	
03135	WHITE (NOT HISPANIC)	1516	1515	1512	1363	7	1	1	0	0	0	2622	2621	247	890	
03140	BLACK (NOT HISPANIC)	1373	1372	1369	1234	7	1	1	0	0	0	2374	2373	202	764	
03145	HISPANIC	39	39	39	36	0	0	0	0	0	0	60	60	7	23	
03150	AMERICAN INDIAN & ALASKAN NATIVE	99	99	99	89	0	0	0	0	0	0	175	175	37	97	
03155	ASIAN & PACIFIC ISL.	1	1	1	1	0	0	0	0	0	0	2	2	0	1	
03160	INA	1	1	1	1	0	0	0	0	0	0	6	6	0	4	
03165	ELIGIBLE CLAIMANT	3	3	3	2	0	0	0	0	0	0	5	5	1	1	
03170	STATE	326	326	326	312	0	0	0	0	0	0	717	716	67	274	
03175	VETERAN	286	286	285	275	0	0	0	0	0	0	640	640	59	261	
03180	RECENTLY SEPARATED	277	277	277	258	1	0	0	0	0	0	483	482	40	98	
03185	DISCLOSED	93	93	93	89	0	0	0	0	0	0	163	162	16	32	
03190	VIETNAM ERA	32	32	32	30	0	0	0	0	0	0	49	49	4	16	
03195	RECENTLY SEPARATED	76	76	76	73	1	0	0	0	0	0	159	159	16	43	
03200	SPECIAL VETERAN	45	45	45	43	0	0	0	0	0	0	79	79	7	18	
03205	OTHER ELIG VET PREF	19	19	19	18	0	0	0	0	0	0	43	43	6	17	
03210	HANDICAPPED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03215	PHYS DISABLED	100	100	100	93	1	0	0	0	0	0	158	158	22	56	
03220	MENTALLY RETARDED	93	93	93	87	0	0	0	0	0	0	144	144	22	49	
MSA 4550		3	3	3	3	0	0	0	0	0	0	6	6	0	4	

MONTHLY YEAR TO DATE

FOR PERIOD ENDING 03/31/79

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MONTHLY YEAR TO DATE
FOR PERIOD ENDING 03/31/79

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TABLE 03 ALL INDIVIDUALS
PLACEMENT AND REFERRAL OF INDIVIDUALS

MASSACHUSETTS SMSA 4560

TABLE 03

ITEM NO	CHARACTERISTICS OF APPLICANTS	TOTAL APPS PLACED	INDIVIDUALS PLACED										INDIVIDUALS REFERRED TO JOB										PLACE- MENT RESULT OF JOB DEVEL MADE
			NONAGRICULTURAL					AGRICULTURAL					TOTAL					NONAG					
			TOTAL	OVER 3 DAYS OR LESS	OVER 150 DAYS	OVER 3 DAYS OR LESS	OVER 150 DAYS	OVER 3 DAYS OR LESS	OVER 150 DAYS	OVER 3 DAYS OR LESS	OVER 150 DAYS	OVER 3 DAYS OR LESS	TOTAL	OVER 3 DAYS OR LESS	OVER 150 DAYS	OVER 3 DAYS OR LESS	TOTAL	OVER 3 DAYS OR LESS	OVER 150 DAYS	OVER 3 DAYS OR LESS	OVER 150 DAYS	OVER 3 DAYS OR LESS	
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
03225	MENTALLY RESTORED	4	4	4	4	3	1	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0
03230	ECON DISADVANTAGED	533	533	533	445	123	0	0	0	0	0	747	747	0	0	0	0	0	0	0	0	0	0
03235	FOOD STAMP WORK REG.	129	129	129	123	123	0	0	0	0	0	172	172	0	0	0	0	0	0	0	0	0	0
03240	WELFARE	143	143	143	139	123	0	0	0	0	0	197	197	0	0	0	0	0	0	0	0	0	0
03245	WIN	126	126	126	123	96	0	0	0	0	0	162	162	0	0	0	0	0	0	0	0	0	0
03250	CETA	96	96	96	96	0	0	0	0	0	0	112	112	0	0	0	0	0	0	0	0	0	0
03263	PRIMARY AGENT	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
03260	SUBGRANTEE	96	96	96	96	0	0	0	0	0	0	110	110	0	0	0	0	0	0	0	0	0	0
03265	COMPLETELY FINANCED	96	96	96	96	0	0	0	0	0	0	110	110	0	0	0	0	0	0	0	0	0	0
03270	NONGRANTEE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03275	SEASONAL FARMWORKER	6	6	6	6	0	0	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0
03280	MIGRANT FARMWORKERS	1	1	1	1	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
03285	MIGRANT FOOD PROCESS WORKER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03290	EMPLOYMENT STATUS	1516	1515	1512	1363	0	0	0	0	0	0	2622	2621	0	0	0	0	0	0	0	0	0	0
03295	FULL TIME	38	38	38	38	0	0	0	0	0	0	114	114	0	0	0	0	0	0	0	0	0	0
03300	PART TIME	31	31	30	21	0	0	0	0	0	0	68	68	0	0	0	0	0	0	0	0	0	0
03305	NOT WORKING	1447	1446	1444	1304	0	0	0	0	0	0	2440	2439	0	0	0	0	0	0	0	0	0	0
03310	JOB ATTACHMENT	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
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TABLE 04 ALL INDIVIDUALS 03/31/79 MASSACHUSETTS SMSA 4560
INDIVIDUALS ENROLLED IN TRAINING, PROVIDED TESTING OR SUPPORTIVE SERVICES

TABLE 04

ITEM NO	CHARACTERISTICS OF APPLICANTS	TOTAL	TRAINING						C	D	E	F	G	H	I	J	K	L	M	N	O
			CETA/INST'L	WIN/INST'L	WIN/WORK EXP	WIN/WORK EXP	JOB CORPS	OTHER C													
A	B																				
04016	AGE	85	20	30	29	0	0	9	0	0	0	0	0	0	0	1140	152	121	46	1	15
04013	15 AND UNDER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
04020	16-17	2	0	1	1	0	0	0	0	0	0	0	0	0	0	39	4	6	2	0	0
04023	18-19	10	7	2	1	0	0	1	0	0	0	0	0	0	0	130	12	17	4	0	0
04030	20-21	6	1	3	2	0	0	0	0	0	0	0	0	0	0	136	12	14	4	0	0
04035	22-24	13	0	7	4	0	0	2	0	0	0	0	0	0	0	192	32	23	11	1	5
04040	25-29	13	2	5	6	0	0	1	0	0	0	0	0	0	0	184	32	14	3	0	1
04045	30-34	13	1	8	4	0	0	0	0	0	0	0	0	0	0	108	12	12	6	0	1
04050	35-39	12	2	3	7	0	0	0	0	0	0	0	0	0	0	87	8	12	5	0	0
04055	40-44	3	1	0	2	0	0	0	0	0	0	0	0	0	0	61	10	8	5	0	0
04060	45-54	7	2	1	0	0	0	4	0	0	0	0	0	0	0	134	16	11	4	0	0
04065	55-64	7	4	0	2	0	0	1	0	0	0	0	0	0	0	62	14	3	1	0	0
04070	65 AND OVER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	1	1	0	0
04075	SEX	36	20	30	29	0	0	9	0	0	0	0	0	0	0	1140	152	121	46	1	15
04080	MALE	26	7	7	11	0	0	3	0	0	0	0	0	0	0	801	130	74	23	0	11
04085	FEMALE	60	13	23	18	0	0	6	0	0	0	0	0	0	0	339	22	47	23	0	4
04090	HIGHEST SCHOOL GRADE	36	20	30	29	0	0	9	0	0	0	0	0	0	0	1140	152	121	46	1	15
04095	0-7	11	3	5	2	0	0	1	0	0	0	0	0	0	0	55	7	6	1	0	0
04100	8-11	36	10	13	10	0	0	4	0	0	0	0	0	0	0	378	41	49	21	0	7
04105	12	30	7	7	15	0	0	2	0	0	0	0	0	0	0	433	77	53	20	1	15
04110	OVER 12	9	0	5	2	0	0	2	0	0	0	0	0	0	0	274	27	13	4	0	0
04115	RESIDENCE	86	20	30	29	0	0	9	0	0	0	0	0	0	0	1140	152	121	46	1	15
04120	URBAN	84	20	29	28	0	0	9	0	0	0	0	0	0	0	1132	150	116	43	1	15
04125	RURAL	2	0	1	1	0	0	0	0	0	0	0	0	0	0	8	2	5	3	0	0
04130	RACE/ETHNIC	86	20	30	29	0	0	9	0	0	0	0	0	0	0	1140	152	121	46	1	15
04135	WHITE (NOT HISPANIC)	68	15	21	23	0	0	9	0	0	0	0	0	0	0	1047	141	99	43	1	15
04140	BLACK (NOT HISPANIC)	3	0	1	2	0	0	0	0	0	0	0	0	0	0	26	3	3	2	0	0
04145	HISPANIC	15	5	8	4	0	0	0	0	0	0	0	0	0	0	59	8	19	1	0	0
04150	AMERICAN INDIAN & ALASKAN NATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
04155	ASIAN & PACIFIC ISL.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
04160	INA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0
04165	ELIGIBLE CLAIMANT	16	0	3	4	0	0	9	0	0	0	0	0	0	0	417	88	21	7	0	1
04170	STATE	15	0	3	4	0	0	8	0	0	0	0	0	0	0	343	51	18	6	0	1
04175	VETERAN	5	2	0	2	0	0	1	0	0	0	0	0	0	0	339	119	13	9	0	0
04180	RECENTLY SEPARATED	2	0	0	1	0	0	1	0	0	0	0	0	0	0	112	54	4	3	0	0
04185	DISABLED	3	1	0	2	0	0	0	0	0	0	0	0	0	0	49	18	3	2	0	0
04190	VIETNAM ERA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	118	48	5	4	0	0
04195	RECENTLY SEPARATED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54	25	3	3	0	0
04200	SPECIAL VETERAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	10	3	2	0	0
04205	OTHER ELIG VET PREF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04210	HANDICAPPED	5	1	1	2	0	0	1	0	0	0	0	0	0	0	125	27	21	10	0	6
04215	PHYS DISABLED	5	1	1	2	0	0	1	0	0	0	0	0	0	0	115	27	18	9	0	6
04220	MENTALLY DISABLED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	1	0	0	0
04225	MENTALLY RESTORED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	2	1	0	0
04230	ECON DISADVANTAGED	75	18	30	29	0	0	1	0	0	0	0	0	0	0	377	28	42	19	1	3

TABLE 04 ALL INDIVIDUALS 03/31/79 MASSACHUSETTS SMSA 4560
INDIVIDUALS ENROLLED IN TRAINING, PROVIDED TESTING OR SUPPORTIVE SERVICES

ITEM NO	CHARACTERISTICS OF APPLICANTS	TOTAL	TRAINING										REFERRAL TO SUPPORTIVE SERVICE				INDIVIDUALS GIVEN SPECIFIED TESTS			
			C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
A	B																			
04235	FOOD STAMP WORK REG.	2			1	1		0	0	0	82	7	5	3	0	0	0	0	0	0
04240	WELFARE	59		30	29		0	0	0	0	91	4	27	16	1	0	0	0	0	0
04245	WIN	59		30	29		0	0	0	0	66	1	23	13	1	0	0	0	0	0
04250	CETA	16		15	2	0	0	0	0	0	60	1	4	1	0	0	0	0	0	0
04255	PRIMARY AGENT	0		0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0
04260	SUBGRANTEE	16		15	2	0	0	0	0	0	58	0	4	1	0	0	0	0	0	0
04265	COMPLETELY FINANCED	16		15	2	0	0	0	0	0	58	0	4	1	0	0	0	0	0	0
04270	NONGRANTEE	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04275	SEASONAL FARMWORKER	0		0	0	0	0	0	0	0	6	0	1	0	0	0	0	0	0	0
04280	MIGRANT FARMWORKERS	0		0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
04285	MIGRANT FOOD PROCESS WORKER	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04290	EMPLOYMENT STATUS	86		20	30	29	0	0	0	0	1140	152	121	46	0	0	0	0	0	0
04295	FULL TIME	3		0	0	3	0	0	0	0	32	7	17	6	1	0	0	0	0	0
04300	PART TIME	1		0	1	0	0	0	0	0	20	1	9	4	0	0	0	0	0	0
04305	NOT WORKING	82		20	29	26	0	0	0	0	1086	144	95	36	1	0	0	0	0	0
04310	JOB ATTACHMENT	0		0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0

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ITEM NO	CHARACTERISTICS OF APPLICANTS	SPECIAL CLASS OF OPENING										INDIV COUN- SELED	PLACED AFTER COUN- SELING	FUTURE FEDERAL USE					
		TOTAL	CETA	PSE	QJT	WORK EXP	F	E	D	C	B								
05010	AGE	706	548				80				64	15		0	0	497	110	0	0
05015	15 AND UNDER	14	0				0				14	0		0	0	0	0	0	0
05020	16-17	25	1				0				23	1		0	0	18	8	0	0
05025	18-19	32	49				12				23	0		0	0	56	13	0	0
05030	20-21	80	63				11				4	1		0	0	49	12	0	0
05035	22-24	126	102				22				0	2		0	0	56	11	0	0
05040	25-29	116	94				18				0	3		0	0	80	16	0	0
05045	30-34	46	54				6				0	4		0	0	56	12	0	0
05050	35-39	46	40				5				0	1		0	0	54	12	0	0
05055	40-44	37	32				4				0	1		0	0	33	8	0	0
05060	45-54	61	60				1				0	0		0	0	56	3	0	0
05065	55-64	55	53				1				0	1		0	0	37	5	0	0
05070	65 AND OVER	0	0				0				0	0		0	0	2	0	0	0
05075	SEX	706	548				80				64	15		0	0	497	110	0	0
05080	MALE	490	374				72				36	7		0	0	251	53	0	0
05085	FEMALE	216	174				8				28	8		0	0	246	52	0	0
05090	HIGHEST SCHOOL GRADE	706	548				80				64	15		0	0	497	110	0	0
05095	0-7	35	21				2				10	2		0	0	34	9	0	0
05100	8-11	232	162				28				36	7		0	0	212	48	0	0
05105	12	253	203				37				12	6		0	0	177	42	0	0
05110	RESIDENCE	131	162				13				6	0		0	0	74	11	0	0
05120	URBAN	706	548				80				64	15		0	0	497	110	0	0
05125	RURAL	700	545				80				64	14		0	0	485	103	0	0
05130	RACE/ETHNIC	6	5				0				0	1		0	0	12	2	0	0
05135	WHITE (NOT HISPANIC)	706	548				80				64	15		0	0	497	110	0	0
05140	BLACK (NOT HISPANIC)	656	525				66				54	12		0	0	454	95	0	0
05145	HISPANIC	19	12				5				2	0		0	0	11	3	0	0
05150	AMERICAN INDIAN & ALASKAN NATIVE	30	11				8				8	3		0	0	27	12	0	0
05155	ASIAN & PACIFIC ISL.	0	0				0				0	0		0	0	0	0	0	0
05160	INA	0	0				0				0	0		0	0	4	0	0	0
05165	ELIGIBLE CLAIMANT	155	128				23				0	3		0	0	90	16	0	0
05170	STATE	135	113				19				0	3		0	0	84	16	0	0
05175	VETERAN	156	134				20				0	1		0	0	70	13	0	0
05180	RECENTLY SEPARATED	47	35				11				0	0		0	0	22	2	0	0
05185	DISABLED	13	13				0				0	0		0	0	16	3	0	0
05190	VIETNAM ERA	30	24				6				0	0		0	0	11	2	0	0
05195	RECENTLY SEPARATED	23	19				4				0	0		0	0	8	1	0	0
05200	SPECIAL VETERAN	6	5				1				0	0		0	0	2	0	0	0
05205	OTHER ELIG VET PREF	0	0				0				0	0		0	0	0	0	0	0
05210	HANDICAPPED	54	40				14				0	0		0	0	91	16	0	0
05215	PHYS DISABLED	51	37				14				0	0		0	0	77	15	0	0
05220	MENTALLY RETARDED	1	1				0				0	0		0	0	7	0	0	0
05225	MENTALLY RESTORED	2	2				0				0	0		0	0	7	1	0	0

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TABLE 05 ALL INDIVIDUALS
APPLICANTS PLACED IN SPECIAL CLASS OF OPENING OR COUNSELED

03/31/79 MASSACHUSETTS
SMSA 4560

TABLE 05

ITEM NO	CHARACTERISTICS OF APPLICANTS	SPECIAL CLASS OF OPENING												INDIV COUN- SELED	PLACED AFTER COUN- SELING	FUTURE FEDERAL USE
		TOTAL	CETA		PSE	OUT	WORK EXP	F	G	H	I	J	K			
			PSE	OUT	WORK EXP	PSE	OUT	WIN	APPREN- TICE- SHIP	OTHER YOUTH PRO- GRAMS		YACC	PLACED RE- FERRED			
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O		
05200	ECON DISADVANTAGED	298	172	54	59	0	15	0	0	0	0	303	68	0		
05235	FOOD STAMP WORK REG.	75	70	2	3	0	0	0	0	0	0	35	5	0		
05240	WELFARE	65	44	4	1	1	15	0	0	0	0	220	48	0		
05245	WIN	54	35	3	0	1	15	0	0	0	0	199	46	0		
05250	CETA	69	6	63	0	0	1	0	0	0	0	67	14	0		
05255	PRIMARY AGENT	0	0	0	0	0	0	0	0	0	0	0	0	0		
05260	SUBGRANTEE	69	6	63	0	0	1	0	0	0	0	67	14	0		
05265	COMPLETELY FINANCED	69	6	63	0	0	1	0	0	0	0	67	14	0		
05270	NONGRANTEE	0	0	0	0	0	0	0	0	0	0	0	0	0		
05275	SEASONAL FARMWORKER	0	0	0	0	0	0	0	0	0	0	5	2	0		
05280	MIGRANT FARMWORKERS	0	0	0	0	0	0	0	0	0	0	1	0	0		
05285	MIGRANT FOOD PROCESS WORKER	0	0	0	0	0	0	0	0	0	0	0	0	0		
05290	EMPLOYMENT STATUS	706	548	80	64	1	15	0	0	0	0	497	110	0		
05295	FULL TIME	3	1	1	0	0	1	0	0	0	0	19	3	0		
05300	PART TIME	5	1	1	3	0	0	0	0	0	0	15	1	0		
05305	NOT WORKING	698	546	70	61	1	14	0	0	0	0	463	106	0		
05310	JOB ATTACHMENT	0	0	0	0	0	0	0	0	0	0	0	0	0		

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ITEM NO.	CHARACTERISTICS OF APPLICANTS	NEW APPS	NEW APPS INCL AND PAR-TIAL	RENEWAL	TOTAL	REGIS-TERED	REGIS-TERED	ANY TIME THIS FY	E	F	G	H	I	J	K	L	M	N	ACTIVE FILE	END OF PERIOD
A	B	C	D	D	E	F	G	H	I	J	K	L	M	N	USE	ACTIVE FILE	END OF PERIOD	USE	ACTIVE FILE	END OF PERIOD
06010	AGE	3754	5423	10	10210	10144	66	1573	2750	5919	1405	1810	2113	0	0	5156	5	0	5156	5
06015	15 AND UNDER	5	10	69	69	69	0	27	4	38	27	2	35	0	0	151	0	0	151	0
06020	16-17	152	227	438	437	437	1	86	131	221	76	93	129	0	0	345	0	0	345	0
06025	18-19	414	635	960	958	958	2	248	235	429	231	221	157	0	0	411	0	0	411	0
06030	20-21	411	630	900	900	900	0	213	307	462	198	205	193	0	0	651	0	0	651	0
06035	22-24	610	893	1403	1403	1403	0	254	432	720	229	315	248	0	0	839	0	0	839	0
06040	25-29	591	858	1593	1593	1593	5	226	468	907	199	308	294	0	0	748	0	0	748	0
06045	30-34	410	567	1267	1267	1267	3	142	298	533	117	185	249	0	0	651	0	0	651	0
06050	35-39	280	384	1035	1035	1035	19	96	235	707	85	139	188	0	0	467	0	0	467	0
06055	40-44	241	319	764	764	764	12	73	177	516	57	99	158	0	0	613	0	0	613	0
06060	45-54	400	550	1110	1110	1094	16	115	280	718	100	163	255	0	0	243	0	0	243	0
06065	55-64	213	294	514	514	511	3	86	114	316	79	61	143	0	0	32	0	0	32	0
06070	65 AND OVER	37	41	77	77	77	0	7	18	52	7	14	24	0	0	5156	5	0	5156	5
06075	SEX	3754	5423	10210	10144	10144	66	1573	2750	5919	1405	1810	2113	0	0	5156	5	0	5156	5
06080	MALE	2111	3204	5382	5378	5378	4	933	1636	2703	906	1075	1152	0	0	2435	0	0	2435	0
06085	FEMALE	1643	2119	4828	4766	4766	62	590	1114	3156	499	735	961	0	0	2721	0	0	2721	0
06090	HIGHEST SCHOOL GRADE	3754	5423	10210	10144	10144	66	1573	2750	5919	1405	1810	2113	0	0	5156	5	0	5156	5
06095	0-7	203	284	600	590	590	10	64	148	370	69	91	114	0	0	343	0	0	343	0
06100	8-11	1201	1844	3705	3668	3668	37	568	991	2154	509	640	745	0	0	1940	0	0	1940	0
06105	12	1583	2237	4073	4062	4062	16	629	1078	2387	558	707	801	0	0	2103	0	0	2103	0
06110	OVER 12	767	1068	1827	1824	1824	3	292	533	1003	269	372	453	0	0	767	0	0	767	0
06115	RESIDENCE	3754	5423	10210	10144	10144	66	1573	2750	5919	1405	1810	2113	0	0	5156	5	0	5156	5
06120	URBAN	3723	5376	10039	9977	9977	62	1559	2717	5792	1391	1775	2072	0	0	5069	0	0	5069	0
06125	RURAL	31	47	171	167	167	4	14	33	127	14	35	41	0	0	37	0	0	37	0
06130	RACE/ETHNIC	3754	5423	10210	10144	10144	66	1573	2750	5919	1405	1810	2113	0	0	5156	5	0	5156	5
06135	WHITE (NOT HISPANIC)	3527	5059	9301	9324	9324	57	1413	2464	5525	1278	1639	1985	0	0	4714	0	0	4714	0
06140	BLACK (NOT HISPANIC)	46	80	179	178	178	1	42	60	79	34	41	33	0	0	78	0	0	78	0
06145	HISPANIC	159	256	595	588	588	8	108	205	287	83	111	62	0	0	344	0	0	344	0
06150	AMERICAN INDIAN & ALASKAN NATIVE	6	6	9	9	9	0	1	3	5	1	1	3	0	0	4	0	0	4	0
06155	ASIAN & PACIFIC ISL.	9	13	30	30	30	0	1	10	19	2	10	7	0	0	12	0	0	12	0
06160	INA	7	9	15	15	15	0	3	8	4	2	8	3	0	0	4	0	0	4	0
06165	ELIGIBLE CLAIMANT	1751	2337	4034	4034	4034	0	331	891	2833	301	421	977	0	0	2328	0	0	2328	0
06170	STATE	1648	2193	3747	3747	3747	0	290	801	2675	265	360	894	0	0	2214	0	0	2214	0
06175	VETERAN	571	905	1580	1580	1580	0	282	517	790	258	304	392	0	0	687	0	0	687	0
06180	RECENTLY SEPARATED	156	245	435	435	435	0	95	150	195	87	104	90	0	0	177	0	0	177	0
06185	DISABLED	78	119	187	187	187	0	35	68	86	28	36	43	0	0	86	0	0	86	0
06190	VIETNAM ERA	191	290	444	444	444	0	75	175	200	66	95	101	0	0	201	0	0	201	0
06195	RECENTLY SEPARATED	80	125	224	224	224	0	45	81	103	40	67	50	0	0	76	0	0	76	0
06200	SPECIAL VETERAN	63	93	154	154	154	0	19	53	85	15	24	44	0	0	74	0	0	74	0
06205	OTHER ELIG VET PREF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

* DURING THE CURRENT FISCAL YEAR
** DURING THE PREVIOUS FISCAL YEAR
SMSA 4560

ITEM NO.	CHARACTERISTICS OF APPLICANTS	NEW APPLICANTS	APPLICANTS ACTIVE AT ANY TIME THIS FY	APPLICANTS PROVIDED	PLACED IN INACTIVE FILE WITH	FUTURE FEDERAL USE	ACTIVE FILE END OF PERIOD							
		C	D	E	F	G	H	I	J	K	L	M	N	O
06210	HANDICAPPED	238	374	694	692	2	105	235	359	92	142	132	0	355
06215	PHYS DISABLED	229	350	659	657	2	93	218	348	85	135	129	0	335
06220	MENTALLY RETARDED	8	13	15	15	0	3	9	3	3	5	2	0	5
06225	MENTALLY RESTORED	1	11	20	20	0	4	8	8	4	2	1	0	15
06230	ECON DISADVANTAGED	908	1243	4253	4193	65	588	1021	2662	486	626	715	0	2527
06235	FOOD STAMP WORK REG.	102	177	615	615	0	130	158	329	129	123	146	0	178
06240	WELFARE	313	469	2769	2704	65	184	612	1982	81	345	304	0	2109
06245	WIN	255	390	2646	2551	65	167	554	1933	68	310	280	0	2054
06250	CETA	67	106	368	368	0	110	98	161	111	36	76	0	155
06255	PRIMARY AGENT	2	3	5	5	0	0	3	2	0	0	1	0	3
06260	SUBGRANTEE	65	102	361	361	0	110	95	157	111	36	74	0	151
06265	COMPLETELY FINANCED	65	102	358	358	0	110	95	154	111	35	72	0	151
06270	NONGRANTEE	0	1	2	2	0	0	0	2	0	0	1	0	0
06275	SEASONAL FARMWORKER	11	14	16	16	0	6	7	3	5	6	0	0	8
06280	MIGRANT FARMWORKERS	4	5	5	5	0	1	4	0	1	4	0	0	3
06285	MIGRANT FOOD PROCESS WORKER	0	1	1	1	0	0	0	1	0	0	0	0	1
06290	EMPLOYMENT STATUS	3754	5423	10210	10144	66	1573	2750	5919	1405	1810	2113	0	5156
06295	FULL TIME	209	266	524	522	2	40	144	341	34	85	130	0	286
03300	PART TIME	140	158	338	333	5	32	95	211	23	59	76	0	184
06305	NOT WORKING	3405	4999	9348	9289	59	1501	2511	5367	1348	1666	1907	0	4686
06310	JOB ATTACHMENT	9	11	19	19	0	0	5	14	0	2	10	0	7

** DURING THE CURRENT FISCAL YEAR

DURING THE CURRENT FISCAL YEAR OR LAST SPELL OF ACTIVE STATUS IN THE PREVIOUS FISCAL YEAR

MONTHLY YEAR TO DATE

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ITEM NO	ITEM	TOTAL NONAG AND AG	OVER 150 DAYS	4 TO 150 DAYS	3 DAYS OR LESS	OVER 150 DAYS	4 TO 150 DAYS	3 DAYS OR LESS	AGRICULTURAL	SPECIAL CLASS OF OPENINGS	CETA/ OUT	CETA/ PSE	CETA/ WORK EXP	WIN/ OUT	WIN/ PSE
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
07010	UNFILLED OPENINGS AS OF LAST DAY PREV FISCAL YEAR	1791	1528	233	3	3	24	0	0	0	0	87	0	3	3
07015	ORDERS RECEIVED	1292	1233	47	8	4	0	0	0	0	56	37	1	16	1
07020	OPENINGS RECEIVED	2659	2481	165	9	4	0	0	0	0	85	663	5	16	1
07025	FISCAL YEAR	2659	2481	165	9	4	0	0	0	0	85	663	5	16	1
07030	EMPLOYMENT SERVICE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07035	OTHER AGENCIES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07040	CETA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07045	OPENINGS RESULT OF JOB DEVELOPMENT	280	269	11	0	0	0	0	0	0	85	0	0	14	0
07050	ORDERS CLOSED	1398	1322	56	10	5	5	0	0	0	53	18	5	15	3
07055	OPENINGS FILLED	3244	2903	300	11	6	24	0	0	0	82	582	90	15	3
07060	OR CANCELLED	1660	1481	169	7	2	1	0	0	0	32	574	84	15	1
07065	EMPLOYMENT SERVICE	1668	1479	169	7	2	1	0	0	0	80	574	84	15	1
07070	OTHER AGENCIES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07075	CETA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07080	OTHER STATE	2	2	0	0	0	0	0	0	0	2	0	0	0	0
07085	CANCELLED	1584	1422	131	4	4	23	0	0	0	0	8	6	0	2
07090	UNFILLED OPENINGS	1206	1106	98	1	1	0	0	0	0	3	81	2	1	1
07100	AT END OF PERIOD	0	-	-	-	-	-	-	-	-	-	-	-	-	-
07105	HIRE I OPENINGS	0	-	-	-	-	-	-	-	-	-	-	-	-	-
07110	RECEIVED	0	-	-	-	-	-	-	-	-	-	-	-	-	-
07115	FILLED	0	-	-	-	-	-	-	-	-	-	-	-	-	-
07120	HIRE II OPENINGS	5	-	-	-	-	-	-	-	-	-	-	-	-	-
07125	RECEIVED	1	-	-	-	-	-	-	-	-	-	-	-	-	-
07130	FILLED	1	-	-	-	-	-	-	-	-	-	-	-	-	-

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TABLE A07
JOB OPENINGS RECEIVED AND FILLED BY OCCUPATION AND SPECIFIED TYPES

MASSACHUSETTS SNSA 4560

TABLE A07

ITEM NO	ITEM	TOTAL		NONAGRICULTURAL		AGRICULTURAL		SPECIAL CLASS OF OPENINGS											
		AND AG	OVER	4 TO 150 DAYS	3 DAYS OR LESS	4 TO 150 DAYS	4 TO 150 DAYS	3 DAYS APPRENTICE-OR LESS	CETA/ OJT	CETA/ PSE	CETA/ WORK EXP	WIN/ OJT	WIN/ PSE						
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O					
OPENINGS RECEIVED																			
A07010	TOTAL	2659	2481	165	9	4	0	0	0	85	663	5	16	1					
A07015	0-1	263	253	10	0	0	0	0	0	2	153	0	4	0					
A07020	20-24	499	426	67	6	0	0	0	0	4	93	0	3	0					
A07025	25-29	45	40	5	0	0	0	0	0	3	0	0	0	0					
A07030	30	4	3	1	0	0	0	0	0	0	0	0	0	0					
A07035	31-39	425	420	5	0	0	0	0	0	7	129	0	0	0					
A07040	4	16	5	7	0	4	0	0	0	0	0	5	0	0					
A07045	5	82	82	0	0	0	0	0	0	8	0	0	0	0					
A07050	6	290	287	3	0	0	0	0	0	14	0	0	4	1					
A07055	7	237	235	2	0	0	0	0	0	10	0	0	4	0					
A07060	8	489	483	5	1	0	0	0	0	34	288	0	0	0					
A07065	90-91	62	56	5	1	0	0	0	0	2	0	0	0	0					
A07070	92	240	184	55	1	0	0	0	0	0	0	0	1	0					
A07075	93-97	7	7	0	0	0	0	0	0	1	0	0	0	0					
OPENINGS FILLED																			
A07085	TOTAL	1660	1481	169	7	2	1	0	0	82	574	84	15	1					
A07090	0-1	161	154	7	0	0	0	0	0	2	134	0	3	0					
A07095	20-24	276	212	62	4	0	0	0	0	4	77	13	3	0					
A07100	25-29	21	19	2	0	0	0	0	0	3	0	0	0	0					
A07105	30	1	0	1	0	0	0	0	0	0	0	0	0	0					
A07110	31-39	249	245	4	0	0	0	0	0	7	112	0	0	0					
A07115	4	79	5	71	0	2	1	0	0	0	0	71	0	0					
A07120	5	33	33	0	0	0	0	0	0	8	0	0	0	0					
A07125	6	125	122	3	0	0	0	0	0	12	0	0	4	1					
A07130	7	136	134	2	0	0	0	0	0	9	0	0	4	0					
A07135	8	390	387	2	1	0	0	0	0	34	251	0	0	0					
A07140	90-91	32	30	1	1	0	0	0	0	2	0	0	0	0					
A07145	92	148	133	14	1	0	0	0	0	0	0	0	1	0					
A07150	93-97	7	7	0	0	0	0	0	0	1	0	0	0	0					
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TABLE 09
INDIVIDUALS PLACED IN JOBS BY INDUSTRIAL AND OCCUPATIONAL CATEGORY AND DIVISION

TABLE 09

03/31/79 MASSACHUSETTS SMSA 4560

ITEM NO	OCCUPATIONAL CATEGORIES AND DIVISIONS	PLACE- MENTS	C	D	E	F	G	H	I	J	K	L	M	N	O
09010	TOTAL	1641	1516	1513	1513	7	0	47	455	22	135	23	212	663	652
09015	PROF TECHN MGR	159	158	158	158	0	0	1	6	0	3	0	9	139	140
09020	CLERICAL	281	275	271	271	0	0	3	49	8	15	14	83	103	99
09025	SALES	20	20	20	20	0	0	0	2	0	14	0	4	0	0
09030	DOMESTIC	1	1	1	1	0	0	0	0	0	0	0	1	0	0
09035	OTHER SERVICES	243	242	242	242	0	0	1	15	0	45	2	64	115	117
09040	FACTOR F & F	76	76	76	76	5	0	0	0	0	0	0	0	71	71
09045	PROCESSING	33	33	33	33	0	0	0	29	0	4	0	0	0	1
09050	MACHINE TRADES	121	119	119	119	0	0	16	79	2	12	1	11	0	0
09055	BENCHWORK	140	138	138	138	2	0	2	127	0	0	0	8	0	2
09060	STRUCTURAL WORK	372	376	375	375	0	0	23	61	2	7	1	18	264	252
09065	MOTOR FRT, TRANSP	32	32	31	31	0	0	1	4	6	17	1	2	0	0
09070	PKG MATERIALS HDLG	150	141	140	140	0	0	0	104	4	18	2	15	0	0
09075	OTHER	7	7	7	7	0	0	0	4	0	1	2	0	0	0

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INDIVIDUALS PLACED IN JOBS BY INDUSTRIAL AND OCCUPATIONAL CATEGORY AND DIVISION

ITEM NO	OCCUPATIONAL CATEGORIES AND DIVISIONS	INDIVIDUALS PLACED IN REGULAR JOBS BY INDUSTRIAL DIVISION														
		PLACE- MENTS EXCLU- DING MASS	TOTAL INDI- VIDUALS PLACED	TOTAL INDI- VIDUALS PLACED	E	F	G	H	I	J	K	L	M	N		
A09010	TOTAL	164	140	140	140	0	0	0	4	74	0	8	3	19	36	0
A09015	PROF TECHN MGR	14	14	14	14	0	0	0	1	1	0	0	0	4	8	9
A09020	CLERICAL	12	12	12	12	0	0	0	0	3	0	0	2	6	1	2
A09025	SALES	1	1	1	1	0	0	0	0	0	0	1	0	0	0	0
A09030	DOMESTIC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A09035	OTHER SERVICES	19	18	18	18	0	0	0	0	2	0	4	1	5	6	6
A09040	FARM F & F	12	12	12	12	0	0	0	0	0	0	0	0	0	12	12
A09045	PROCESSING	8	8	8	8	0	0	0	0	0	0	0	0	0	0	1
A09050	MACHINE TRADES	27	27	27	27	0	0	0	3	22	0	1	0	1	0	0
A09055	BENCHMARK	21	21	21	21	0	0	0	0	21	0	0	0	0	0	0
A09060	STRUCTURAL WORK	23	23	23	23	0	0	0	0	9	0	0	0	3	11	11
A09065	MOTOR FRT, TRANSP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A09070	PKG MATERIALS HDLG	26	21	21	21	0	0	0	0	20	0	2	0	1	0	0
A09075	OTHER	2	2	2	2	0	0	0	0	2	0	0	0	0	0	0

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TABLE B09 - ECON DISADVANTAGED 03/31/79 MASSACHUSETTS SMSA 4560
INDIVIDUALS PLACED IN JOBS BY INDUSTRIAL AND OCCUPATIONAL CATEGORY AND DIVISION

TABLE B09

ITEM NO	OCCUPATIONAL CATEGORIES AND DIVISIONS	INDIVIDUALS PLACED IN REGULAR JOBS BY INDUSTRIAL DIVISION													
		PLACE- MENTS	TOTAL INDI- VIDUALS PLACED	TOTAL INDI- VIDUALS PLACED	E	F	G	H	I	J	K	L	M	N	O
		C	D	E	F	G	H	I	J	K	L	M	N	O	
B09010	TOTAL	561	533	533	2	0	15	161	8	31	6	65	258	253	
B09015	PROF TECHN MGR	48	48	48	0	0	1	2	0	1	0	3	41	42	
B09020	CLERICAL	80	80	80	0	0	0	7	2	4	3	23	41	42	
B09025	SALES	11	11	11	0	0	0	2	0	5	0	4	0	0	
B09030	DOMESTIC	0	0	0	0	0	0	0	0	0	0	0	0	0	
B09035	OTHER SERVICES	69	69	69	0	0	0	1	0	10	1	21	36	36	
B09040	FARM F & F	67	67	67	2	0	0	0	0	0	0	0	65	65	
B09045	PROCESSING	20	20	20	0	0	0	17	0	3	0	0	0	0	
B09050	MACHINE TRADES	41	40	40	0	0	4	30	1	1	0	5	0	0	
B09055	BENCHWORK	54	54	54	0	0	2	50	0	0	0	2	0	0	
B09060	STRUCTURAL WORK	123	123	123	0	0	8	25	1	2	0	7	80	74	
B09065	MOTOR FRY, TRANSP	9	9	9	0	0	0	1	3	4	0	1	0	0	
B09070	PKG MATERIALS HDLG	37	37	37	0	0	0	33	1	2	1	0	0	0	
B09075	OTHER	2	2	2	0	0	0	1	0	0	1	0	0	0	
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CHARACTERISTICS OF APPLICANTS PLACED BY WAGE RATE AT WHICH PLACED

ITEM NO	CHARACTERISTICS OF APPLICANTS	TOTAL APPS PLACED	UNDER \$2.65	\$2.65 - \$3.00	\$3.00 - \$3.49	\$3.49 - \$3.99	\$3.99 - \$4.49	\$4.49 - \$4.99	\$4.99 - \$5.49	\$5.49 - \$5.99	\$5.99 - \$6.00	AVERAGE, OTHER OVER	
A	B	C	D	E	F	G	H	I	J	K	L	M	N
15010	AGE	1516	7	256	358	221	305	338	75	9	31	0.00	3
15015	15 AND UNDER	27	0	27	0	0	0	0	0	0	0	0.00	0
15020	16-17	65	0	61	25	1	1	1	0	0	0	0.00	0
15025	18-19	242	3	68	76	40	37	37	4	0	4	0.00	0
15030	20-21	208	2	32	60	30	39	42	9	0	3	0.00	2
15035	22-24	244	0	15	53	36	47	67	21	4	4	0.00	0
15040	25-29	217	0	9	46	36	58	55	15	2	5	0.00	0
15045	30-34	134	1	11	31	22	29	35	8	0	7	0.00	0
15050	35-39	89	1	8	18	18	18	25	7	0	1	0.00	0
15055	40-44	71	0	4	14	13	20	16	2	2	2	0.00	0
15060	45-54	112	0	12	20	10	28	35	6	1	4	0.00	1
15065	55-64	81	0	6	8	14	27	25	3	0	1	0.00	0
15070	65 AND OVER	7	0	3	2	1	1	0	0	0	0	0.00	0
15075	SEX	1516	7	256	358	221	305	338	75	9	31	0.00	3
15080	MALE	967	2	124	218	134	227	245	46	7	26	0.00	0
15085	FEMALE	549	5	132	140	87	78	93	29	2	5	0.00	3
15090	HIGHEST SCHOOL GRADE	1516	7	256	358	221	305	338	75	9	31	0.00	3
15095	0-7	76	0	27	20	9	14	12	0	0	0	0.00	0
15100	8-11	544	2	133	163	53	106	96	19	1	5	0.00	2
15105	12	611	5	79	139	107	126	129	29	7	23	0.00	1
15110	OVER 12	285	0	17	36	52	50	101	27	1	3	0.00	0
15115	RESIDENCE	1516	7	256	358	221	305	338	75	9	31	0.00	3
15120	URBAN	1503	7	254	354	221	302	336	74	9	30	0.00	3
15125	RURAL	13	0	2	4	0	3	2	1	0	1	0.00	0
15130	RACE/ETHNIC	1516	7	256	358	221	305	338	75	9	31	0.00	3
15135	WHITE (NOT HISPANIC)	1373	7	220	303	200	282	318	71	8	31	0.00	3
15140	BLACK (NOT HISPANIC)	39	0	9	10	3	8	11	0	0	0	0.00	0
15145	HISPANIC	99	0	27	43	16	14	8	3	1	0	0.00	0
15150	AMERICAN INDIAN & ALASKAN NATIVE	1	0	0	0	0	0	0	1	0	0	0.00	0
15155	ASIAN & PACIFIC ISL.	1	0	0	1	1	0	0	0	0	0	0.00	0
15160	INA	3	0	0	1	1	1	1	0	0	0	0.00	0
15165	ELIGIBLE CLAIMANT	326	1	17	75	41	69	81	17	4	9	0.00	0
15170	STATE	286	1	17	68	37	80	65	14	4	8	0.00	0
15175	VETERAN	277	0	14	42	43	75	83	14	3	16	0.00	0
15180	RECENTLY SEPARATED	93	0	8	18	17	23	24	3	1	4	0.00	0
15185	DISABLED	32	0	1	5	10	5	10	0	1	2	0.00	0
15190	VIETNAM ERA	76	0	3	13	15	14	21	5	1	9	0.00	0
15195	RECENTLY SEPARATED	45	0	3	8	8	10	14	1	0	4	0.00	0
15200	SPECIAL VETERAN	19	0	0	2	4	2	6	2	1	3	0.00	0
15205	OTHER ELIG VET PREF	0	0	0	0	0	0	0	0	0	0	0.00	0
15210	HANDICAPPED	100	0	10	20	26	20	28	1	1	3	0.00	0
15215	PHYS DISABLED	93	0	9	17	24	19	26	1	1	3	0.00	0
15220	MENTALLY RETARDED	3	0	1	1	0	1	0	0	0	0	0.00	0
15225	MENTALLY RESTORED	4	0	0	2	2	0	2	0	0	0	0.00	0
15230	ECOM DISADVANTAGED	533	2	131	113	65	76	117	35	5	7	0.00	2
15235	FOOD STAMP WORK REG.	129	1	15	22	15	50	24	4	0	3	0.00	0
15240	WELFARE	143	0	24	42	17	25	26	6	4	2	0.00	1

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TABLE 15 ALL INDIVIDUALS CHARACTERISTICS OF APPLICANTS PLACED BY WAGE RATE AT WHICH PLACED MASSACHUSETTS SMSA 4560

ITEM NO.	CHARACTERISTICS OF APPLICANTS	A	B	C	D	E	F	G	H	I	J	K	L	M	N
15245	WIN	126			0	21	41	14	22	19	5	4	2	0.00	1
15250	CETA	96			0	5	19	28	14	24	4	3	1	0.00	0
15255	PRIMARY AGENT	0			0	0	0	0	0	0	0	0	0	0.00	0
15260	SUBGRANTEE	96			0	5	19	28	14	24	4	3	1	0.00	0
15265	COMPLETELY FINANCED	96			0	5	19	28	14	24	4	3	1	0.00	0
15270	NONGRANTEE	0			0	0	0	0	0	0	0	0	0	0.00	0
15275	SEASONAL FARMWORKER	6			0	0	5	2	0	0	0	0	0	0.00	0
15280	MIGRANT FARMWORKERS	1			0	0	1	1	0	0	0	0	0	0.00	0
15285	MIGRANT FOOD PROCESS WORKER	0			0	0	0	0	0	0	0	0	0	0.00	0
15290	EMPLOYMENT STATUS	1516			7	256	358	221	305	338	75	9	31	0.00	3
15295	FULL TIME	38			1	8	15	12	4	4	0	0	1	0.00	0
15300	PART TIME	31			0	9	9	11	0	3	0	0	0	0.00	0
15305	NOT WORKING	1447			6	239	334	198	301	331	75	9	30	0.00	3
15310	JOB ATTACHMENT	0			0	0	0	0	0	0	0	0	0	0.00	0
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TABLE A22 - ALL ACTIVITY 03/31/79 MASSACHUSETTS SMSA 4560
ACTIVITY RELATED TO THE PROGRAM BUDGET PLAN AND RESOURCE ALLOCATION FORMULA

TABLE A22

ITEM NO	ACTIVITY	TOTAL	FEMALE	AGE	UNDER 22	45 AND OVER	TOTAL	VETERAN	DIS- ABLED	MINORITY	ECONOM- MICAL- L Y	MIGRANT SEAS- FARM- WORKERS	HANDI- CAPPED	ELIG- CLAI- MANT
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
A22010	INDIVIDUALS													
A22010	APPLICANTS ACTIVE AT ANY TIME THIS FY	10210	4928	2447	1701	1580	444	187	814	215	4258	17	694	4034
A22015	OTHER WELFARE	127	67	29	35	19	4	1	22	7	127	1	25	19
A22020	ATTACHED TO A JOB	19	8	2	7	7	1	2	1	0	7	0	4	7
A22025	SEASONAL FARMWORKERS	16	2	4	3	1	0	0	11	2	12	16	0	3
A22030	MIGRANT FARMWORKERS	5	0	1	2	1	0	0	4	1	4	5	0	1
A22035	MIGRANT FOOD PROCESS WORKER	1	0	0	0	1	0	0	0	0	0	1	0	0
A22040	CARRY-IN	4795	2705	949	824	662	153	67	464	100	2910	3	327	1627
A22045	NEW AFFILIANTS & RENEWALS	5423	2119	1502	885	906	290	119	355	116	1243	15	374	2337
A22050	PARTIAL REGIST	0	0	0	0	0	0	0	0	0	0	0	0	0
A22055	OTHER WELFARE	79	41	18	27	14	4	1	15	6	79	1	18	6
A22060	ATTACHED TO A JOB	11	4	1	6	6	1	2	0	0	3	0	3	2
A22065	SEASONAL FARMWORKERS	14	1	3	3	1	0	0	9	1	9	14	0	2
A22070	MIGRANT FARMWORKERS	5	0	1	2	1	0	0	4	1	3	5	0	1
A22075	MIGRANT FOOD PROCESS WORKER	1	0	0	0	1	0	0	0	0	0	1	0	0
A22080	COUNSELING	497	246	123	95	70	11	16	42	12	303	5	91	90
A22085	TESTING	121	47	37	15	13	5	3	22	4	42	1	21	21
A22090	APTITUDE TESTING	70	32	13	6	9	4	2	12	1	31	0	18	11
A22095	PERFORMANCE & SELECTION TESTING	48	14	19	9	4	1	1	6	2	9	0	3	8
A22099	REFERRED TO TRAINING	152	22	23	30	119	48	18	11	4	28	0	27	88
A22100	ENROLLMENT IN TRAINING	86	60	18	14	5	0	3	18	6	76	0	5	15
A22102	JOB DEVELOPMENT													
A22103	CONTACTS	890	335	294	107	98	43	16	125	47	347	7	55	274
A22104	REFERRED TO JOB	2622	956	920	338	483	159	49	243	88	747	11	153	717
A22104	INACTIVATED WITH SOME SERVICE													
A22105	INDIVIDUALS PLACED	3215	1234	1053	424	552	161	64	288	101	1112	11	234	722
A22110	3 DAYS OR LESS	1516	549	562	200	277	76	32	140	55	533	6	100	326
A22115	4-150 DAYS	7	3	3	2	1	1	0	0	0	0	0	1	0
A22120	OVER 3 DAYS	169	85	112	8	10	3	2	14	12	91	0	8	16
A22125	OVER 150 DAYS	1513	547	561	193	277	76	32	140	55	533	6	100	326
A22130	NONAGRICULTURAL	1363	468	461	191	268	73	30	127	43	445	6	93	312
A22130	AGRICULTURAL	1515	549	561	200	277	76	32	140	55	533	6	100	326
A22132	OVER 3 DAYS	1512	547	560	193	277	76	32	140	55	533	6	100	326
A22135	AGRICULTURAL	1	0	1	0	0	0	0	0	0	0	0	0	0
A22135	UNSUBSIDIZED JOBS	816	333	366	84	125	47	20	91	35	237	6	51	171
A22137	SUBSIDIZED JOBS	715	220	202	113	159	31	13	49	20	303	0	54	157
A22139	RESULT OF JOB DEV.	247	97	77	19	40	16	4	44	16	147	1	22	57
A22140	AFTER COUNSELING	110	52	38	13	13	2	3	15	5	69	2	16	16

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TABLE A22 - ALL ACTIVITY
ACTIVITY RELATED TO THE F

03/31/79 MASSACHUSETTS

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FORMULA

TABLE A22

ITEM NO	ACTIVITY	TOTAL	FEMALE	AGE		VETERAN			MINORITY			ECONOMICALLY DISADVANTAGED	MIGRANT SEAFARMERS	HANDICAPPED	ELIGIBLE CLAIMANTS
				UNDER 22	45 AND OVER	TOTAL	VIET-NAM	DIS-ABLED	TOTAL	YOUTH					
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
A22145	AFTER APTITUDE TEST	22	11												
A22150	AFTER PERFORMANCE & SELEC	13	7	1	3	2	1	0	1	0	0	4	0	0	6
A22155	SEASONAL FARMWORKERS	6	1	3	0	0	0	0	3	1	1	2	6	0	4
A22160	MIGRANT FARMWORKERS	1	0	1	0	0	0	0	1	1	1	0	1	0	0
A22165	MIGRANT FOOD PROCESS WORKER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A22170	OTHER WELFARE	17	3	5	2	3	1	0	3	2	17	0	0	0	0
A22175	ATTACHED TO A JOB WAGES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A22181	UNDER \$2.65	7	5	5	0	0	0	0	0	0	2	0	0	0	0
A22186	\$2.65 - \$2.99	256	132	188	21	14	3	1	36	23	131	0	10	17	17
A22191	\$3.00 - \$3.99	564	225	227	55	81	26	15	67	24	174	6	43	116	116
A22195	\$4.00 AND OVER	733	201	166	127	137	49	17	44	10	234	0	52	195	195
TRANSACTIONS															
A22200	TOTAL PLACEMENTS	1641													
A22205	PLACEMENTS (EXCLUDING MASS)														
A22210	NONAGRICULTURAL	1641	585	624	210	293	82	34	164	64	561	7	111	339	339
A22215	OVER 3 DAYS	1640	585	623	210	293	82	34	164	64	561	7	111	339	339
A22220	AGRICULTURAL	1633	582	620	208	292	81	34	164	64	561	7	110	339	339
A22225	OVER 3 DAYS	1	0	1	0	0	0	0	0	0	0	0	0	0	0
A22230	MASS PLACEMENTS	1	0	1	0	0	0	0	0	0	0	0	0	0	0
A22235	NONAGRICULTURAL	0													
A22240	AGRICULTURAL	0													
A22245	JOB OPENINGS REC'D	2659													
A22250	NONAGRICULTURAL	2655													
A22255	3 DAYS OR LESS	9													
A22260	4-150 DAYS	165													
A22265	OVER 150 DAYS	2491													
WAGES															
A22291	UNDER \$2.65	8													
A22296	\$2.65 - \$2.99	377													
A22301	\$3.00 - \$3.99	1144													
A22306	\$4.00 AND OVER	1107													
A22310	AGRICULTURAL	4													
A22315	JOB OPENINGS FILLED	1660													
A22320	NONAGRICULTURAL	1657													
A22325	3 DAYS OR LESS	7													
A22330	4-150 DAYS	169													
A22335	OVER 150 DAYS	1481													
WAGES															
A22361	UNDER \$2.65	7													
A22365	\$2.65 - \$2.99	267													
SIACA 4500															

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TABLE 23

FOOD STAMP WORK REGISTRANTS SERVED

03/31/79

MASSACHUSETTS

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TABLE 23

ITEM NO.	APPLICANT CHARACTERISTICS	APPS . ACTIVE . AT ANY . TIME . THIS FY.	NEW . APPLI- . CANTS . AND . RENEW . ALS	D	E	F	G	H	I	J	K	L	M	N
		C	D	D	E	F	G	H	I	J	K	L	M	N
23010	AGE	615	177	137	129	242	172	2	0	0	0	35	5	2
23015	15 AND UNDER	8	2	2	2	2	2	2	0	0	0	0	0	0
23016	16-17	37	9	4	4	11	10	10	0	0	0	2	1	0
23017	18-19	73	21	19	17	36	22	22	0	0	0	1	0	0
23020	20-21	69	16	23	19	50	26	26	0	0	0	2	0	0
23023	22-24	95	21	21	21	30	24	24	0	0	0	2	0	0
23030	25-29	95	34	20	19	41	28	28	0	0	0	5	1	0
23035	30-34	62	17	15	14	20	17	17	0	0	0	1	1	1
23037	35-39	49	15	10	10	15	14	14	0	0	0	6	1	1
23040	40-44	42	14	7	7	19	11	11	0	0	0	3	0	0
23045	45-54	50	14	7	7	8	8	8	0	0	0	6	0	0
23050	55-64	34	13	8	8	9	9	9	0	0	0	7	0	0
23055	65 AND OVER	1	1	1	1	1	1	1	0	0	0	0	1	0
23060	SEX	615	177	137	129	242	172	2	0	0	0	35	5	2
23065	MALE	339	110	94	87	153	103	2	0	0	0	16	2	1
23070	FEMALE	276	67	43	42	89	69	2	0	0	0	19	3	1
23075	HIGHEST SCHOOL GRADE	615	177	137	129	242	172	2	0	0	0	35	5	2
23080	0-7	31	14	9	9	13	10	10	0	0	0	3	0	0
23085	8-11	245	78	51	46	102	68	68	0	0	0	18	3	0
23090	12	219	63	50	48	82	62	62	0	0	0	10	1	1
23095	OVER 12	120	22	27	26	45	32	32	0	0	0	4	1	1
23100	RACE/ETHNIC	615	177	137	129	242	172	2	0	0	0	35	5	2
23105	WHITE (NOT HISPANIC)	553	155	116	109	203	148	148	0	0	0	30	3	0
23110	BLACK (NOT HISPANIC)	14	4	4	4	11	5	5	0	0	0	0	0	0
23115	HISPANIC	46	18	17	16	28	19	19	0	0	0	5	2	2
23120	AMERICAN INDIAN & ALASKAN NATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0
23125	ASIAN & PACIFIC ISL.	2	0	0	0	0	0	0	0	0	0	0	0	0
23130	INA	0	0	0	0	0	0	0	0	0	0	0	0	0
23135	VETERAN	62	17	21	20	27	19	19	0	0	0	4	0	0
23141	VIETNAM ERA	16	4	9	8	14	8	8	0	0	0	1	0	0
23145	EMPLOYMENT STATUS	615	177	137	129	242	172	2	0	0	0	35	5	2
23150	FULL TIME	20	0	1	1	1	1	1	0	0	0	1	0	0
23155	PART TIME	21	3	0	0	1	1	1	0	0	0	1	1	0
23160	NOT WORKING	574	174	136	128	240	170	170	0	0	0	33	4	2
23165	JOB ATTACHMENT	3	0	0	0	0	0	0	0	0	0	0	0	0
23170	HEAD OF HOUSEHOLD	231	101	42	39	88	61	61	0	0	0	22	1	1
23175	WELFARE	97	30	7	7	21	21	21	0	0	0	17	3	2
23180	WIN	54	8	5	5	10	10	10	0	0	0	7	2	2
23185	CETA	28	4	4	4	6	6	6	0	0	0	2	0	0
23190	MIGRANT AND SEASONAL FARMWORKER	3	2	1	1	5	2	2	0	0	0	1	0	0

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TABLE 27
PLACEMENT IN OPENINGS RECEIVED FROM FEDERAL CONTRACTORS AND AGENCIES

TABLE 27

03/31/79 MASSACHUSETTS SMSA 4560

ITEM NO	CHARACTERISTICS OF INDIVIDUALS	NUMBER OF PLACEMENTS	INDIVIDUALS PLACED										INDIVIDUALS REFERRED TO JOB			
			TOTAL			VETERANS			TOTAL .REC SEP. SPECIAL. VIETNAM. DIS- ABLED				TOTAL REFERRALS			TOTAL .REC SEP. SPECIAL. VIETNAM. DIS- ABLED
A	B	C	D	E	F	G	H	I	J	K	L	M	N			
27010	SEX	345	331	47	8	2	320	331	1173	956	160	29	5			
27015	MALE	225	213	45	8	2	204	213	732	584	155	28	5			
27020	FEMALE	120	118	2	0	0	116	118	441	372	5	1	0			
27025	AGE	345	331	47	8	2	320	331	1173	956	160	29	5			
27030	UNDER 20	77	73	2	0	0	71	73	245	193	6	0	0			
27035	20-24	121	116	16	5	0	111	116	390	304	50	18	0			
27040	25-29	48	45	11	2	1	43	45	168	145	33	6	2			
27043	30-34	34	34	8	1	0	33	34	105	92	26	5	0			
27045	35-39	17	16	1	0	0	16	16	71	59	8	0	0			
27050	40-44	12	12	2	0	0	12	12	64	55	9	0	0			
27053	45-54	19	19	3	0	0	18	19	82	63	17	0	0			
27060	55-64	14	13	4	0	1	13	13	38	31	9	0	3			
27065	65 & OVER	3	3	0	0	0	3	3	10	9	2	0	0			
27070	HIGHEST SCHOOL GRADE COMPLETED	345	331	47	8	2	320	331	1173	956	160	29	5			
27075	0-7	21	20	0	0	0	20	20	57	42	3	1	0			
27080	8-11	141	130	10	2	0	125	130	447	342	40	3	2			
27085	12	135	133	26	6	2	130	133	472	399	82	21	3			
27090	OVER 12	48	48	11	0	0	45	48	197	173	35	4	0			
27095	RACE/ETHNIC	345	331	47	8	2	320	331	1173	956	160	29	5			
27100	WHITE (NOT HISPANIC)	265	277	45	8	2	266	277	1005	635	149	28	3			
27105	BLACK (NOT HISPANIC)	12	10	1	0	0	10	10	42	28	5	1	0			
27110	HISPANIC	46	42	1	0	0	42	42	116	87	5	0	0			
27120	AMERICAN INDIAN & ALASKAN NATIVE	0	0	0	0	0	0	0	1	1	1	0	0			
27125	ASIAN & PACIFIC ISL.	0	0	0	0	0	0	0	3	2	0	0	0			
27130	INA	2	2	0	0	0	2	2	4	3	0	0	0			
27135	ECON DISADVANTAGED	122	121	15	3	0	116	121	282	234	26	5	1			
27140	HANDICAPPED	25	24	13	1	2	24	24	58	52	30	2	5			

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ITEM NO.	ITEM	TOTAL	FEDERAL GOVERNMENT	CONTRACTORS & SUBCONTRACTORS
A	B	C	D	E
29015	UNFILLED OPENINGS - LAST DAY OF PREVIOUS FISCAL YEAR	505	10	7
29020	ORDERS RECEIVED	436	4	8
29025	OPENINGS RECEIVED	718	13	8
29030	ORDERS CLOSED	460	4	13
29035	OPENINGS FILLED OR CANCELLED	809	7	13
29040	FILLED	341	6	7
29045	CANCELLED	468	1	6
29050	UNFILLED OPENINGS AT END OF PERIOD	414	16	2
29055	UNFILLED 30 DAYS OR MORE	357	16	2
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TABLE 30 - INDIVIDUALS
SELECTED WIN ACTIVITY BY

03/31/79 MASSACHUSETTS
ISTICS OF REGISTRANTS

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TABLE 30

SELECTED WIN ACTIVITY BY CHARACTERISTICS OF REGISTRANTS

ITEM NO.	CHARACTERISTICS OF APPLICANTS	REGISTRANTS			ENTERED EMPLOYMENT			TAX CREDITS			DEREGISTRATIONS						
		CUMU- LATIVE	ON HAND, END OF TOTAL PERIOD	TOTAL	PLACED	OBTAIN- ED	AUTHOR- IZED	EMP AFT. REG	EMP VOL. NOT OFF.	NEVER AFDC	EXEMPT	SANC- TIONED	OFF AFDC	OTHER	TOTAL		
30010	AGE	2645	2097	228	57	175	42	148	11	13	123	7	263	573			
30015	15 AND UNDER	1	1	0	0	0	0	0	0	0	0	0	0	0			
30017	15-17	101	73	17	7	11	4	13	0	0	4	0	12	29			
30018	18-19	92	60	6	2	5	2	8	0	0	7	0	16	7			
30020	20-21	74	56	11	2	9	3	4	3	2	4	0	6	19			
30025	22-24	180	123	23	5	12	3	16	3	1	15	2	17	53			
30030	25-29	406	317	33	12	27	12	23	4	2	15	2	50	96			
30035	30-34	538	440	43	10	38	5	33	1	4	21	1	45	105			
30037	35-39	503	418	34	9	26	5	20	0	2	14	0	53	89			
30040	40-44	526	276	18	5	13	3	15	0	1	13	1	22	52			
30045	45-54	367	287	35	5	23	2	16	0	5	27	0	34	81			
30050	55-54	55	39	0	0	0	0	0	0	1	3	1	11	16			
30055	65 AND OVER	2	2	0	0	0	0	0	0	0	0	0	0	0			
30060	SEX	2645	2097	228	57	175	42	148	11	13	123	7	263	573			
30065	MALE	735	477	110	22	91	18	104	1	8	34	6	115	267			
30070	FEMALE	1910	1620	118	35	84	24	44	10	10	39	1	153	306			
30075	HIGHEST SCHOOL GRADE	2645	2097	228	57	175	42	148	11	13	123	7	263	573			
30080	0-7	246	195	13	5	9	2	7	1	4	14	3	26	56			
30085	8-11	1261	1011	107	24	85	20	68	3	4	48	3	139	263			
30090	12	954	767	91	23	69	19	54	6	10	50	1	71	191			
30095	13	184	124	17	5	12	1	19	1	0	11	0	30	61			
30100	RACE/ETHNIC	2645	2097	228	57	175	42	148	11	13	123	7	263	573			
30105	WHITE (NOT HISPANIC)	2306	1811	201	44	160	33	135	8	14	114	7	239	516			
30110	BLACK (NOT HISPANIC)	61	48	8	1	7	0	4	1	2	5	0	2	14			
30112	HISPANIC	269	230	18	12	7	9	9	2	2	4	0	26	42			
30115	AMERICAN INDIAN & ALASKAN NATIVE	2	2	1	0	1	0	0	0	0	0	0	0	0			
30120	ASIAN & PACIFIC ISL.	5	4	0	0	0	0	0	0	0	0	0	1	0			
30125	INA	2	2	0	0	0	0	0	0	0	0	0	0	0			
30127	FAMILY SIZE	506	400	73	20	53	20	34	4	15	37	0	42	130			
30129	1-2	126	105	15	5	10	4	4	2	0	12	0	12	30			
30129	3-5	321	251	49	14	35	15	25	2	14	20	0	24	83			
30130	5-8	53	42	8	1	7	1	4	0	1	3	0	5	13			
30131	9 OR MORE	6	2	1	0	1	0	1	0	0	2	0	1	4			
30135	FOOD STAMP WORK REG.	28	9	7	3	5	2	6	0	3	3	0	7	19			
30140	EMPLOYMENT STATUS	2645	2097	223	57	175	42	148	11	13	123	7	263	573			
30145	FULL TIME	162	146	3	1	2	1	5	0	3	1	0	7	16			
30150	PART TIME	144	121	11	2	10	0	4	0	1	3	0	17	25			
30155	NOT WORKING	2339	1330	214	54	163	41	139	11	14	119	7	244	532			
30160	JOB ATTACHMENT	4	3	0	0	0	0	0	0	1	0	0	0	1			
30165	APPLICANTS FOR AFDC	498	150	11	1	10	1	1	0	17	2	0	11	31			
30170	MANDATORY	466	172	10	0	10	0	1	-	17	2	0	11	31			
30171	UNEMPLOYED FATHERS	149	34	3	0	3	0	0	-	8	1	0	0	9			
30175	UNEMPLOYED	33	8	1	1	0	1	0	0	0	0	0	0	0			
30180	RECIPIENTS	2448	1917	213	56	166	41	147	11	-	121	7	257	543			

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TABLE 30 - INDIVIDUALS
SELECTED WIN ACTIVITY BY CHARACTERISTICS OF REGISTRANTS

03/31/79 MASSACHUSETTS
SMSG 4560

TABLE 30

ITEM NO	CHARACTERISTICS OF APPLICANTS	REGISTRANTS	ENTERED EMPLOYMENT			TAX CREDITS			DEREGISTRATIONS									
			CUMULATIVE TOTAL	ON HAND	END OF PERIOD	PLACED	OBTAINED EMPLOYMENT	AUTHORIZED EMPLOYMENT	AUTHORIZED EMPLOYMENT	REG OFF AFDC	NOT OFF AFDC	NEVER EXEMPT	SANCTIONED	OFF AFDC	OTHER	TOTAL		
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O				
30105	MANDATORY	2255	1781	197	47	154	33	141	-	-	81	7	245	475				
30106	UNEMPLOYED FATHERS	460	268	83	15	69	14	75	-	-	28	6	85	193				
30190	VOLUNTARY	208	136	21	9	12	8	6	10	-	40	0	12	68				
30195	PREVIOUS WIN REGISTRANT	290	226	36	8	28	8	23	3	2	8	1	33	76				
30200	PLACED	57	-	-	-	-	26	14	7	0	0	0	0	21				
30205	OBTAINED EMPLOYMENT	175	-	-	-	-	1	85	4	0	0	1	5	95				
30210	TOTAL MANDATORY	2444	-	-	-	-	-	-	-	-	-	-	-	-				
30215	UNEMPLOYED FATHERS	502	-	-	-	-	-	-	-	-	-	-	-	-				
30220	TOTAL VOLUNTEERS	217	-	-	-	-	-	-	-	-	-	-	-	-				
30225	SERVICES PROVIDED	24	-	-	-	-	-	-	-	-	-	-	-	-				
30230	CHILD CARE ONLY	22	-	-	-	-	-	-	-	-	-	-	-	-				
30235	CHILD CARE & OTHER	0	-	-	-	-	-	-	-	-	-	-	-	-				
30240	EMPLOYMENT RELATED MEDICAL	1	-	-	-	-	-	-	-	-	-	-	-	-				
30245	FAMILY PLANNING	0	-	-	-	-	-	-	-	-	-	-	-	-				
30250	HOME MANAGEMENT	0	-	-	-	-	-	-	-	-	-	-	-	-				
30255	COUNSELING	0	-	-	-	-	-	-	-	-	-	-	-	-				
30260	ANY FIVE SERVICES	1	-	-	-	-	-	-	-	-	-	-	-	-				

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TABLE 31 - INDIVIDUALS
ENTRANCE TO EMPLOYMENT BY SERVICES RECEIVED 03/31/79

MASSACHUSETTS

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TABLE 31

ITEM NO	EMPLOYMENT CATEGORIES, AND OTHER ITEMS	TOTAL	ENTERED EMPLOYMENT (RECIP) AFTER -										ENTERED EMPLOYMENT FROM					MANDATORY	VOLUNTARY
			EMP	APPLI- CANTS	D	E	F	G	H	I	J	K	L	M	N	O			
31010	ENTERED EMPLOYMENT	228	11	12	12	26	25	143	1	0	0	10	26	206	0	22			
31015	30 DAYS OR MORE	226	11	12	12	26	25	143	1	0	0	10	26	206	0	22			
31020	PLACED	57	1	12	3	8	5	23	1	0	0	4	6	47	0	10			
31025	OBTAINED EMPLOY- MENT	175	10	9	9	18	21	118	0	0	0	6	20	163	0	12			
31030	FULL TIME	209	10	12	10	24	25	129	1	0	0	8	26	186	0	21			
31035	PART TIME	20	1	0	2	3	0	14	0	0	0	2	0	19	0	1			
31040	LESS THAN 30 DAYS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
31045	MANDATORY	206	10	9	10	18	23	137	1	0	0	3	23	15	0	0			
31050	UNEMPLOYED FATHERS	85	3	3	4	5	16	55	1	0	0	3	15	0	0	0			
31055	VOLUNTARY	22	1	3	2	8	2	6	0	0	0	2	0	0	0	22			
31060	MALE	110	5	5	6	7	18	70	1	0	0	4	17	109	0	1			
31065	FEMALE	118	6	7	6	19	7	73	0	0	0	6	9	97	0	21			
31070	AGE	228	11	12	12	26	25	143	1	0	0	10	26	206	0	22			
31075	UNDER 22	34	2	1	2	6	3	20	0	0	0	1	3	29	0	5			
31080	22-44	161	8	10	7	18	21	98	1	0	0	6	22	144	0	17			
31085	45 AND OVER	53	1	1	3	2	1	25	0	0	0	3	1	33	0	0			
31090	HIGHEST SCHOOL GRADE COMPLETED	228	11	12	12	26	25	143	1	0	0	10	26	206	0	22			
31095	0-7	13	0	1	1	1	1	9	0	0	0	1	1	11	0	2			
31100	6-11	107	7	2	6	9	13	71	0	0	0	3	14	100	0	7			
31105	12	91	4	7	4	14	8	55	1	0	0	4	9	79	0	12			
31110	OVER 12	17	0	2	1	3	3	8	0	0	0	2	2	16	0	1			
31111	FAMILY SIZE	73	5	1	0	2	14	52	0	0	0	0	14	65	0	8			
31112	1-2	15	2	1	0	0	0	12	0	0	0	0	0	11	0	4			
31113	3-5	49	3	0	0	2	12	33	0	0	0	0	12	45	0	4			
31114	6-8	3	0	0	0	0	2	6	0	0	0	0	2	8	0	0			
31115	9 OR MORE	1	0	0	0	0	1	1	0	0	0	0	0	1	0	0			
31117	UNDER \$2.65	3	1	0	0	0	0	2	0	0	0	0	0	3	0	0			
31120	\$2.65 - \$2.99	46	3	0	2	8	1	33	0	0	0	1	1	41	0	5			
31125	\$3.00 - \$3.49	74	4	7	4	11	8	40	0	0	0	5	9	60	0	14			
31130	\$3.50 - \$3.99	24	2	3	1	3	6	9	0	0	0	0	7	23	0	1			
31135	\$4.00 - 4.49	26	0	3	1	1	1	23	0	0	0	0	1	25	0	1			
31140	\$4.50 AND OVER	53	1	2	4	4	9	36	1	0	0	4	8	55	0	15			
31145	CURRENTS ENTERED	75	-	12	12	26	25	-	-	-	-	-	-	60	0	15			
31150	ORIENTATION	0	-	0	0	0	0	-	-	-	-	-	-	0	0	0			
31155	IMS	33	-	3	3	2	25	-	-	-	-	-	-	28	0	5			
31160	INSTITUTIONAL	4	-	1	-	3	-	-	-	-	-	-	-	3	0	2			
31165	WORK EXPERIENCE	18	-	11	-	7	-	-	-	-	-	-	-	16	0	2			
31170	SUSPENSE TO TRAINING	17	-	0	-	17	-	-	-	-	-	-	-	11	0	6			
31175	OJT	11	-	9	2	-	-	-	-	-	-	-	-	9	0	2			
31180	PCE	0	-	0	0	-	-	-	-	-	-	-	-	0	0	0			
31185	SUSPENSE TO EMPLOYMENT	13	-	3	10	-	-	-	-	-	-	-	-	10	0	3			

TABLE 31 - INDIVIDUALS
ENTRANCE TO EMPLOYMENT BY SERVICES RECEIVED

MASSACHUSETTS
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TABLE 31

ITEM NO	EMPLOYMENT CATEGORIES AND OTHER ITEMS	TOTAL	ENTERED EMP.	ENTERED EMPLOYMENT*						ENTERED EMPLOYMENT FROM						MANDATORY	VOLUME
				APPLI- CANTS	EMPLOYMENT & TRNG	COMP	TRNG	EMP AND. EMP	COMP	TRNG	COMP	OTHER COMP	NO COMP.	OUT	PSE		
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O			
31190	POTENTIAL FOLLOW-THROUGH CONTACTS	198	8	11	11	24	19	126	1	0	9	21	181	17			
31195	ACTUAL FOLLOW-THROUGH CONTACTS	218	27	8	11	23	22	128	1	0	9	23	197	21			
31200	FOLLOW-THROUGH CONTACTS EMPLOYED	201	24	7	10	21	20	119	1	0	9	20	181	20			
31205	NO CONTACT WITHIN 60 DAYS	0	0	0	0	0	0	0	0	0	0	0	0	0			
31210	SERVICES PROVIDED	3	0	0	0	1	0	2	0	0	0	0	2	1			
31215	CHILD CARE ONLY	2	0	0	0	1	0	1	0	0	0	0	1	1			
31220	CHILD CARE & OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0			
31225	EMPLOYMENT RELATED MEDICAL	0	0	0	0	0	0	0	0	0	0	0	0	0			
31230	FAMILY PLANNING	0	0	0	0	0	0	0	0	0	0	0	0	0			
31235	HOME MANAGEMENT	0	0	0	0	0	0	0	0	0	0	0	0	0			
31240	COUNSELING	0	0	0	0	0	0	0	0	0	0	0	0	0			
31245	ANY FIVE SERVICES	1	0	0	0	0	0	1	0	0	0	0	1	0			

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TABLE 32
WIN REGISTRANT STATUS

03/31/79 MASSACHUSETTS SMSA 4560

TABLE 32

ITEM NO.	WIN REGISTRANT STATUS	CUMULATIVE TOTAL	ON HAND END OF PERIOD										FAMILY SIZE											
			ENTERED DURING CURRENT MONTH	TRANS-ACTIONS	INDIVIDUALS	TOTAL MANDATORY	TOTAL MANDATORY	H	G	F	E	D	C	A	B	I	J	K	L	M	N	O		
32010	REGISTRANTS	2645	107	510	453	502	53	453	502	220	37	2645	313	OR MORE	141	127	144	126	321	53	12	52	8	1
32015	APPLICANTS FOR AFDC	490	79	344	318	340	22	318	340	46	7	490	44	EMPLOYED PART-TIME	36	34	8	11	15	2	15	2	1	0
32020	RECIPIENT	2443	101	462	405	456	55	405	456	188	32	2443	347	COMPONENTS	219	179	40	14	47	4	47	4	1	0
32025	WORKING REGISTRANTS	621	41	241	207	231	24	207	231	241	41	621	621	INTENSIVE MANPOWER SERVICE	409	380	29	18	64	8	18	64	8	1
32030	JOB EXPECTED TO LAST 30 DAYS																							
32031	EMPLOYED PART-TIME	313	37	220	168	209	21	168	209	220	37	313	313	OR MORE	141	127	144	126	321	53	12	52	8	1
32035	COMPONENTS	44	7	46	42	44	2	42	44	46	7	44	44	EMPLOYED PART-TIME	36	34	8	11	15	2	15	2	1	0
32040	INTENSIVE MANPOWER SERVICE	56	6	32	26	32	6	26	32	32	6	56	56	COMPONENTS	12	10	2	2	19	3	19	3	0	0
32045	ORIENTATION	0	0	0	0	0	0	0	0	0	0	0	0	INTENSIVE MANPOWER SERVICE	0	0	0	0	0	0	0	0	0	0
32050	INSTITUTIONAL TRAINING	38	9	30	17	30	13	17	30	30	9	38	38	COMPONENTS	31	18	13	5	11	1	11	1	0	0
32055	CJT	22	8	15	11	15	4	11	15	15	8	22	22	WORK EXPERIENCE	10	8	2	2	4	1	4	4	1	0
32060	WORK EXPERIENCE	48	10	29	24	29	5	24	29	29	10	48	48	PUBLIC SERVICE	20	16	4	4	6	1	6	6	1	0
32065	PUBLIC SERVICE EMPLOYMENT	5	0	1	1	1	0	1	1	1	0	5	5	EMPLOYMENT	5	5	0	0	0	0	0	0	0	0
32070	SUSPENSE TO EMPLOYMENT	159	3	56	45	56	11	45	56	56	3	159	159	SUSPENSE TO EMPLOYMENT	117	101	16	2	8	0	8	8	0	0
32075	SUSPENSE TO TRAINING	51	4	25	17	25	8	17	25	25	4	51	51	OTHER WIN NON-EMPLOYMENT ACTIVITY	24	21	3	1	8	0	8	8	0	0
32077	OTHER WIN NON-EMPLOYMENT ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	NOTICE OF INTENDED DEREGISTRATION	0	0	0	0	0	0	0	0	0	0
32080	UNASSIGNED RECIPIENT	1869	106	482	415	466	51	415	466	482	106	1869	1869	NOTICE OF INTENDED DEREGISTRATION	1253	1191	62	99	250	48	99	250	48	0
32085	NOTICE OF INTENDED DEREGISTRATION	27	5	28	27	27	0	27	27	28	5	27	27	HEARING REQUESTED	-	-	-	1	3	1	1	3	1	0
32090	HEARING REQUESTED	0	0	0	0	0	0	0	0	0	0	0	0	60 DAY COUNSELING	-	-	0	0	0	0	0	0	0	0
32095	60 DAY COUNSELING	0	0	0	0	0	0	0	0	0	0	0	0	APPRAISAL INTERVIEWS	0	0	0	0	0	0	0	0	0	0
32100	APPRAISAL INTERVIEWS	438	87	438	391	438	47	391	438	438	87	438	438	SERVICES FROM BOTH AGENCIES REQUIRED	-	-	-	77	224	40	77	224	40	0
32105	SERVICES FROM BOTH AGENCIES REQUIRED	64	8	64	48	64	16	48	64	64	8	64	64	SAU SERVICES ONLY REQUIRED	-	-	-	10	21	2	10	21	2	0
32110	SAU SERVICES ONLY REQUIRED	2	0	2	2	2	0	2	2	2	0	2	2	ES SERVICES ONLY REQUIRED	-	-	-	0	1	0	0	1	0	0
32115	ES SERVICES ONLY REQUIRED	246	62	246	222	246	24	222	246	246	62	246	246	NO SERVICES REQUIRED	-	-	-	40	148	30	40	148	30	0
32120	NO SERVICES REQUIRED	54	9	54	52	54	2	52	54	54	9	54	54	OTHER APPRAISAL	-	-	-	11	31	3	11	31	3	0
32125	OTHER APPRAISAL	72	8	72	67	72	5	67	72	72	8	72	72		-	-	-	16	23	5	16	23	5	0

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YEAR-TO-DATE SUMMARY OF SERVICE TO INDIVIDUALS

ITEM NO	ACTIVITY	TOTAL	FEMALE	ECON-	MINOR-	BLACK	OTHER	HIS-	HANDI-	VETERAN	DIS-	UNDER	45 OR	ELIG
				OMIC-	ITY	NOT	OR	PANIC	CAPPED		ABLED	22	OLDER	CLAIM-
				ALLY	GROUP	HIS-	SPE-			TOTAL	VIET-			ANT
				DISAD-		PANIC	CIFY			NAM	ERA			
				VANT-										
				AGED										
A	B	C	D	E	F	G	H	I	J	K	L	M	N	P
91010	INTAKE (APPS. ACTIVE AT ANY TIME FY)	10210	4823	4253	814	179	39	596	694	1580	444	187	2447	1701
91015	PARTIAL REGIST	66	62	65	9	1	0	8	2	0	0	0	3	19
91020	NEW APPLICANTS	3754	1643	908	220	46	15	159	238	571	191	78	982	650
91025	PARTIAL REGIST	0	0	0	0	0	0	0	0	0	0	0	0	0
91030	RENEWALS	1714	492	344	137	34	4	99	140	346	106	42	540	238
91035	COUNSELING	497	246	303	42	11	4	27	91	70	11	16	123	95
91036	INTERVIEWS	490	245	299	41	11	4	26	90	70	11	16	120	94
91037	GROUP SESSIONS	8	1	5	1	0	0	1	2	1	0	0	3	2
91040	TESTING	121	47	42	22	3	0	19	21	13	5	3	37	15
91045	ENROLLMENT IN ORIENT	0	0	0	0	0	0	0	0	0	0	0	0	0
91050	REFERRED TO SUPPORT-	1140	339	377	88	26	3	59	125	339	118	49	306	202
91051	TIVE SERVICE	107	30	43	10	2	0	8	23	17	6	1	26	20
91060	REHABILITATION	86	60	76	18	3	0	15	5	5	0	3	18	14
91065	ENROLLMENT IN	20	13	18	5	0	0	5	1	2	0	1	8	6
91065	TRAINING	0	0	0	0	0	0	0	0	0	0	0	0	0
91070	CETA INSTITUTIONAL	0	0	0	0	0	0	0	0	0	0	0	0	0
91075	JOB CORPS	30	23	30	9	1	0	8	1	0	0	0	6	1
91075	WIN INSTITUTIONAL	29	13	29	6	2	0	4	2	2	0	2	4	2
91077	WIN WORK EXPERIENCE	9	6	1	0	0	0	0	1	1	0	0	1	5
91080	OTHER	890	385	347	125	23	5	97	56	98	43	16	294	107
91135	JOB DEVELOPMENT	247	97	147	44	7	0	37	22	40	16	4	77	19
91140	CONTACTS	2622	956	747	243	60	8	175	153	433	159	49	920	338
91150	PLACEMENT RESULT OF	2621	956	747	243	60	8	175	158	482	159	49	919	338
91150	REFERRED TO JOB	6	2	1	0	0	0	0	0	2	1	0	3	0
91155	NONAGRICULTURAL	1516	549	533	140	39	2	99	100	277	76	32	562	200
91160	AGRICULTURAL	1515	549	533	140	39	2	99	100	277	76	32	561	200
91165	PLACED	1512	547	533	140	39	2	99	100	277	76	32	560	193
91170	NONAGRICULTURAL	1363	468	445	127	36	2	89	93	268	73	30	461	191
91175	OVER 3 DAYS	7	3	0	0	0	0	0	1	1	1	0	3	2
91180	OVER 150 DAYS	23	7	6	5	3	0	2	1	2	0	0	7	4
91185	3 DAYS OR LESS	1	1	1	0	0	0	0	0	0	0	0	0	0
91190	CLEARANCE	1	1	1	0	0	0	0	0	0	0	0	0	0
91195	PARTIAL REGIST	1	0	0	0	0	0	0	0	0	0	0	1	0
91200	AGRICULTURAL	1	0	0	0	0	0	0	0	0	0	0	1	0
91205	OVER 3 DAYS	0	0	0	0	0	0	0	0	0	0	0	0	0
91210	OVER 150 DAYS	0	0	0	0	0	0	0	0	0	0	0	0	0
91215	3 DAYS OR LESS	0	0	0	0	0	0	0	0	0	0	0	0	0
91220	CLEARANCE	0	0	0	0	0	0	0	0	0	0	0	0	0
91225	PARTIAL REGIST	0	0	0	0	0	0	0	0	0	0	0	0	0
91251	APPRENTICESHIP	0	0	0	0	0	0	0	0	0	0	0	0	0
91252	CETA	689	203	283	46	19	0	27	54	154	30	13	197	115
91253	CETA/OUT	80	8	54	13	5	0	8	14	20	6	0	23	2

APPLICANTS AND NONAGRICULTURAL JOB OPENINGS BY OCCUPATION																								
ITEM NO.	OCCUPATIONAL CODE	ACTIVE FILE										NONAGRICULTURAL OPENINGS												
		TOTAL	REGIS-TERED	TOTAL	FEMALE	VETERAN	AGE GROUPS	MINOR-ITY	ECONOM-ICALLY	TOTAL	RE-CEIVED	REC'D	OPENING	UNFILLED	OPEN									

MONTHLY YEAR TO DATE
FOR PERIOD ENDING 03/31/79

ITEM NO	OCCUPATIONAL CODE	ACTIVE FILE										NONAGRICULTURAL OPENINGS									
		TOTAL REGIS- TERED APPS	TOTAL FEMALE	VETERAN	AGE GROUPS	MINOR- ITY	ECONOM- ICALLY DIS- ADVANT- AGED	J	K	L	M	N	OPENING, OPENING, UNFILLED OPEN	REC'D, FILLED	TOTAL 30 DAYS OR MORE	CON- TRACTOR	JOB LISTING				
96	072	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	074	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	074161-010	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	075	21	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	075374	14	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	075374-010	12	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	075374-022	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	076	7	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	076121-010	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	076121-014	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	076	9	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	076351-014	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	076362-010	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	076362-025	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	076361-010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	079	39	21	17	3	3	3	1	1	1	1	1	12	3	3	3	3	3	3	3	3
96	079667-010	3	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
96	07971-010	14	8	3	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
96	07974-014	16	10	8	2	1	1	1	1	1	1	1	6	1	1	1	1	1	1	1	1
96	07974-022	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	090	5	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
96	090227-010	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	091	44	17	8	3	2	3	1	1	1	1	1	7	0	0	0	0	0	0	0	0
96	091227-010	43	16	8	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0
96	092	35	9	9	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
96	092227-010	29	6	6	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
96	092227-014	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	094	5	3	3	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
96	097	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	099	16	9	6	1	2	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
96	100	8	6	6	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
96	100127-014	5	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	109	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	110	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	110107	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	110107-010	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	119	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	120	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	131	5	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
96	132	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	137	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ITEM NO	OCCUPATIONAL CODE	TOTAL REGIS- TERED APPS	TOTAL FEMALE	VETERAN	AGE GROUPS	MINOR- ITY	ECONOM- ICALLY DISAD- VANT- AGED	J	K	L	M	N	NONAGRICULTURAL OPENINGS
					UNDER 22	15 AND OLDER							
A	B	C	D	E	F	G	H	I	J	K	L	M	N
96	141	15	6	4	0	2	0	0	1	0	0	0	0
96	142	5	1	1	0	1	0	0	0	0	0	0	0
95	143	14	6	4	0	2	0	1	4	0	0	0	0
95	144	2	1	0	0	0	0	0	0	0	0	0	0
95	149	4	2	0	0	0	0	0	0	0	0	0	0
95	150	1	0	0	0	0	0	0	0	0	0	0	0
96	151	2	0	0	0	0	0	0	0	0	0	0	0
96	152	18	8	3	0	1	0	1	3	0	0	0	0
95	153	12	4	3	0	0	0	0	0	0	0	0	0
95	153224-010	1	0	0	0	0	0	0	0	0	0	0	0
95	154	8	5	1	1	1	0	1	3	0	0	0	0
95	155	53	22	7	7	0	10	0	4	8	4	1	3
95	156	5	1	0	0	0	0	0	0	0	0	0	0
95	150162-014	37	13	4	0	0	0	0	3	4	0	0	0
95	150167-010	4	3	0	2	0	3	0	0	4	0	0	0
95	150267-013	5	3	2	0	0	0	0	1	1	0	0	0
95	151	1	0	0	0	0	0	0	0	0	0	0	0
95	151117-010	18	6	3	0	0	0	0	1	0	0	0	0
95	152	9	4	2	0	0	0	0	0	0	0	0	0
95	152157-033	24	15	2	7	1	5	1	3	1	0	0	0
95	153	21	13	2	6	0	5	1	2	0	0	0	0
95	153167-018	2	1	0	0	0	0	0	0	0	0	0	0
95	154	13	4	1	1	0	1	0	1	0	0	0	0
95	155	11	3	1	0	0	0	0	1	0	0	0	0
95	155167-010	23	13	8	2	0	1	0	2	3	3	0	0
95	156	12	6	2	4	0	2	0	1	2	2	0	0
95	156167-030	1	0	0	0	0	0	0	0	0	0	0	0
95	159	73	29	18	3	3	6	1	7	161	1	137	23
95	159167-010	37	14	8	2	2	3	0	3	157	0	137	19
95	159167-034	19	7	4	1	0	2	0	1	0	0	0	0
95	160	1	1	1	0	0	0	0	0	0	0	0	0
95	162	16	10	0	6	1	3	0	5	0	0	0	0
95	162267-010	3	1	0	0	0	0	0	1	0	0	0	0
95	163	23	13	2	4	0	3	0	2	0	0	0	0
95	164	9	6	0	3	1	1	0	0	0	0	0	0
95	164167-050	1	0	0	0	0	0	0	0	0	0	0	0
95	165	57	24	7	7	2	9	0	6	8	4	2	1
95	165167-035	1	0	0	0	0	0	0	0	0	0	0	0
95	166	19	5	1	3	0	3	0	0	1	1	0	0
95	167	60	32	8	9	1	7	2	7	1	0	0	0
95	167167-062	1	1	0	0	0	0	0	0	0	0	0	0
95	167167-106	19	12	6	2	0	3	1	3	0	0	0	0

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ITEM NO.	OCCUPATIONAL CODE	TOTAL REGIS- TERED APPS	ACTIVE ANYTIME THIS FY.	TOTAL FEMALE VETERAN	AGE GROUPS UNDER 22 .45 AND OLDER	MINOR- ITY	ECONOM- ICALLY DISAD- VANT- AGED	J	I	H	G	F	E	D	C	B	A	L	M	N	5
96	216	64	32	25	3	6	4	1	1	7	13	6	0	0	0	0	0	0	0	0	0
96	216382-034	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	216462-010	55	30	23	3	5	3	1	1	7	9	5	7	7	7	7	7	7	7	7	7
96	219	187	77	77	0	6	19	3	3	61	11	2	57	57	57	57	57	57	57	57	57
96	219362-010	174	70	70	0	5	17	3	3	57	17	8	57	57	57	57	57	57	57	57	57
96	221	18	14	9	3	4	2	0	0	4	3	3	4	4	4	4	4	4	4	4	4
96	222	172	69	13	13	16	5	1	1	19	51	16	19	19	19	19	19	19	19	19	19
96	222367-038	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	222367-050	87	37	2	7	10	1	1	1	10	20	6	10	10	10	10	10	10	10	10	10
96	222367-058	28	6	2	1	5	1	0	0	1	12	4	5	5	5	5	5	5	5	5	5
96	223	3	1	1	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0
96	230	11	6	1	2	3	2	1	1	2	1	2	2	2	2	2	2	2	2	2	2
96	235	28	15	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	235452-010	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	235532-014	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	235562-022	16	9	9	0	0	2	0	0	7	2	2	7	7	7	7	7	7	7	7	7
96	237	50	20	20	0	1	0	1	1	16	10	2	16	16	16	16	16	16	16	16	16
96	237367-010	1	1	1	0	0	0	0	0	1	0	0	1	1	1	1	1	1	1	1	1
96	237367-038	46	19	19	0	1	0	0	0	15	9	0	15	15	15	15	15	15	15	15	15
96	238	6	4	4	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0
96	238362-010	4	1	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
96	239	2	2	1	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0
96	241	21	7	6	1	0	0	0	0	5	2	0	5	5	5	5	5	5	5	5	5
96	241357-010	3	1	1	0	0	0	0	0	1	0	0	1	1	1	1	1	1	1	1	1
96	243	6	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	243367-014	3	3	3	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	245	6	4	4	0	0	0	0	0	0	14	0	4	4	4	4	4	4	4	4	4
96	247	6	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	249	50	22	21	0	1	2	0	0	15	10	3	15	15	15	15	15	15	15	15	15
96	249367-058	3	1	0	0	0	0	0	0	1	0	0	1	1	1	1	1	1	1	1	1
96	250	16	6	3	1	0	2	0	0	4	1	0	4	4	4	4	4	4	4	4	4
96	250257-010	3	3	0	1	0	2	0	0	2	1	0	2	2	2	2	2	2	2	2	2
96	250357-018	5	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	251	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	251357-010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	252	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	253	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	254	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	259	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	250	9	5	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	261	21	12	8	1	2	3	0	0	5	3	2	8	8	8	8	8	8	8	8	8
96	261357-038	1	1	1	0	0	1	0	0	1	0	0	1	1	1	1	1	1	1	1	1

MONTHLY YEAR TO DATE
FOR PERIOD ENDING 03/31/79

ITEM NO	OCCUPATIONAL CODE	TOTAL	REGIS- TERED	APPS	ACTIVE ANYTIME THIS FY.	TOTAL	FEMALE	VETERAN	AGE GROUPS	MINOR- ITY	ECONOM- ICALLY DISAD- VANT- AGED	J	K	L	M	N	NONAGRICULTURAL OPENINGS
									UNDER 22	45 AND OLDER							
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
96	261357-046	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	261357-050	6	4	1	1	0	1	0	0	0	0	0	0	0	0	0	0
96	261357-054	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
96	261357-062	2	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0
96	261357-066	8	5	5	0	0	1	1	0	0	0	0	0	0	0	0	0
96	262	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0
96	269	2	2	1	1	0	0	1	0	0	0	0	0	0	0	0	0
96	270	13	7	4	1	1	0	3	0	0	0	0	0	0	0	0	0
96	270357-038	4	3	2	1	0	0	1	0	0	0	0	0	0	0	0	0
96	271	11	6	1	1	1	0	0	0	0	0	0	0	0	0	0	0
96	273	10	6	1	1	1	0	0	0	0	0	0	0	0	0	0	0
96	273353-010	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	273357-022	9	4	0	0	4	0	3	0	0	0	0	0	0	0	0	0
96	274	7	3	1	1	1	1	0	0	0	0	0	0	0	0	0	0
96	275	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	275357-010	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
96	275357-034	5	4	1	1	1	1	1	0	0	0	0	0	0	0	0	0
96	277	61	28	17	3	7	4	0	2	0	0	0	0	0	0	0	0
96	279	6	4	0	0	2	0	0	0	0	0	0	0	0	0	0	0
96	279357-050	34	18	15	1	4	3	0	2	0	0	0	0	0	0	0	0
96	279357-054	54	34	31	1	4	10	7	1	0	0	0	0	0	0	0	0
96	290	43	27	26	1	1	3	0	0	0	0	0	0	0	0	0	0
96	290477-014	10	6	4	0	2	0	0	0	0	0	0	0	0	0	0	0
96	290477-018	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	291	8	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0
96	292	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
96	292353-010	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
96	293	27	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0
96	293357-014	59	43	41	1	1	9	12	0	0	0	0	0	0	0	0	0
96	301	16	12	12	0	2	2	4	0	0	0	0	0	0	0	0	0
96	301474-010	26	19	19	0	6	4	0	0	0	0	0	0	0	0	0	0
96	301677-010	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	305	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	305261-010	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	309	14	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0
96	309677-010	242	161	151	0	40	2	16	0	0	0	0	0	0	0	0	0
96	310	47	33	27	0	19	0	3	0	0	0	0	0	0	0	0	0
96	311	111	81	79	0	7	6	2	0	0	0	0	0	0	0	0	0
96	311477-014																
96	311477-030																

ITEM NO	OCCUPATIONAL CODE	TOTAL REGIS- TERED	TOTAL FEMALE	VETERAN	AGE GROUPS	MINOR- ITY	ECONOMI- CALLY RE- CEIVED	DISAD- VANT- AGED	J	K	L	M	N	O
					UNDER 22	45 AND OLDER								
96	311477-030	5	4	4	0	1	0	0	0	4	2	0	0	0
96	311677-010	18	1	1	0	0	0	0	0	1	1	0	1	0
96	311677-014	39	8	8	3	2	0	0	0	4	8	2	8	8
96	312	34	15	15	2	1	1	17	17	0	0	0	0	0
96	312474-010	74	36	8	9	8	2	14	14	26	2	7	7	5
96	313	11	6	0	3	1	0	0	0	0	0	0	0	0
96	313131-014	1	0	0	0	0	0	0	0	0	0	0	0	0
96	313131-026	19	12	0	3	2	0	0	0	3	5	1	3	2
96	313361-014	25	9	5	2	2	1	1	1	0	0	1	1	0
96	313361-022	4	2	0	1	0	0	0	0	0	1	0	0	0
96	313361-026	0	0	0	0	0	0	0	0	0	0	0	0	0
96	313361-030	2	1	0	0	1	0	0	0	1	0	0	0	0
96	313361-010	1	1	1	0	1	1	0	0	1	0	0	0	0
96	313361-026	1	1	1	0	1	1	0	0	1	0	0	0	0
96	313504-010	35	22	12	4	6	10	15	15	5	5	1	1	0
96	315	11	7	1	3	1	10	10	15	5	0	0	0	0
96	317	15	6	4	1	0	0	0	5	2	0	0	0	0
96	317584-014	2	2	1	1	0	0	0	1	0	0	0	0	0
96	317697-010	6	3	2	0	0	0	0	1	3	1	0	0	0
96	318	54	26	13	1	14	1	18	18	26	2	14	8	7
96	318	50	24	11	1	13	1	17	17	26	2	14	8	7
96	319	5	1	1	0	0	0	1	1	0	0	0	0	0
96	320	2	0	0	0	0	0	0	0	0	0	0	0	0
96	321	15	7	5	1	2	1	2	2	0	0	0	0	0
96	323	12	9	9	0	2	0	7	7	5	0	3	2	1
96	323687-010	3	1	1	0	0	0	1	1	1	0	0	0	0
96	323687-014	6	6	6	0	1	2	5	5	2	0	0	0	0
96	330	6	5	2	2	0	0	3	3	0	0	0	0	0
96	332	54	36	34	1	1	2	33	33	2	0	0	0	0
96	332271-010	36	27	27	0	0	2	27	27	0	0	0	0	0
96	334	1	0	0	0	0	0	0	0	0	0	0	0	0
96	341	1	1	1	0	1	0	0	0	0	0	0	0	0
96	342	3	2	0	0	1	0	2	2	0	0	0	0	0
96	350	1	1	1	0	0	0	1	1	0	0	0	0	0
96	352	1	1	0	1	0	0	1	1	0	0	0	0	0
96	353	1	1	0	0	0	0	0	0	0	0	0	0	0
96	354	8	7	6	1	0	0	6	6	0	0	0	0	0
96	354374-010	3	3	2	0	0	0	0	0	0	0	0	0	0
96	354677-010	1	1	1	1	0	0	1	1	0	0	0	0	0
96	355	185	98	89	2	17	13	74	74	39	10	30	23	14

TABLE 96
APPLICANTS AND NONAGRICULTURAL JOB OPENINGS BY OCCUPATION

03/31/79 MASSACHUSETTS
SMSA 4560

TABLE 96

TABLE 96

ITEM NO.	OCCUPATIONAL CODE	TOTAL REGIS-TERED APPS	TOTAL FEMALE	VETERAN	AGE GROUPS	MINOR-ITY	ECONOMI-CALLY DISAD-VANT-AGED	TOTAL RECEIVED	L	M	N	NONAGRICULTURAL OPENINGS
					UNDER 22	.45 AND OLDER						
570		5	3	0	1	1	0	0	5	5	0	0
573		1	1	0	0	0	0	0	0	0	0	0
575		4	4	0	2	0	0	1	0	3	0	0
579		10	8	0	4	0	0	2	0	0	0	0
580		1	0	0	0	0	0	0	0	0	0	0
581		2	2	1	1	0	0	0	0	0	0	0
582		13	3	0	2	0	0	1	0	0	0	0
583		6	4	2	0	1	2	3	0	0	0	0
584		2	1	0	0	0	0	0	0	0	0	0
585		0	0	0	0	0	0	0	0	0	0	0
586		0	0	0	0	0	0	0	0	0	0	0
589		9	4	0	2	0	2	1	0	1	0	0
590		1	1	0	1	0	0	0	0	0	0	0
599		3	7	0	1	0	0	1	1	0	0	0
600		33	23	0	10	2	3	4	18	7	12	12
600260		31	21	0	9	4	3	5	17	8	12	12
60000-010		4	2	0	0	0	0	0	0	0	0	0
60000-022		16	9	0	5	0	0	0	13	4	11	11
60000-018		7	1	0	0	0	0	1	1	1	1	1
601		5	1	0	0	0	0	0	1	1	1	1
601200		5	1	0	0	0	0	0	1	1	1	1
601200-046		1	0	0	0	0	0	0	1	1	1	1
602		2	1	0	0	0	0	0	0	0	0	0
603		8	4	3	1	0	1	1	2	2	0	0
606280-018		1	1	0	1	0	0	0	0	0	0	0
60632-026		1	1	0	0	0	0	0	0	0	0	0
604		6	2	0	1	0	0	0	0	0	0	0
604685-026		4	1	0	1	0	0	0	4	2	0	0
605		1	0	0	0	0	0	0	4	0	0	0
606		10	8	1	1	0	2	4	2	0	1	0
607		2	1	0	0	0	1	0	2	0	0	0
609		21	12	4	2	0	2	3	9	7	0	0
609694-014		6	1	1	0	0	0	1	6	0	0	0
609685-018		8	7	1	0	0	2	2	3	0	0	0
610		1	0	0	0	0	0	0	0	0	0	0
615		11	4	0	0	0	1	4	0	4	1	0
615482-022		2	1	1	0	0	0	0	0	0	0	0
616		55	32	3	0	1	11	12	17	11	1	0
617		5	4	2	0	0	2	2	3	0	3	0
617695-026		1	1	1	0	0	0	1	0	0	0	0
619		31	15	2	2	1	6	8	28	12	7	5

TABLE 96
APPLICANTS

TABLE 96
APPLICANTS AND NONAGRICULTURAL JOB OPENINGS BY OCCUPATION
03/31/79 MASSACHUSETTS

GMSA 4560

03/31/75

TABLE 96
APPLICANTS AND NONAGRICULTURAL
ITEM . OCCUPATIONAL CODE

TABLE 96

ITEM NO	OCCUPATIONAL CODE	ACTIVE FILE										NONAGRICULTURAL OPENINGS									
		TOTAL REGIS- TERED APPS ACTIVE ANYTIME THIS FY.	TOTAL	FEMALE	VETERAN	AGE GROUPS UNDER 22 .45 AND OLDER	MINOR- ITY	ECONOM- ICALLY DISAD- VANT- AGED	TOTAL RE- CEIVED	OPENING REC'D FEDERAL CON- TRACTOR JOB LISTING	L	M	N	OPENING UNFILLED TOTAL	OPENING UNFILLED TOTAL	30 DAYS OR MORE					
96	619360-014	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
96	620	111	55	1	11	15	5	2	17	32	1	18	1	12	1	12					
96	620261-010	57	24	1	6	3	3	0	9	19	0	10	0	7	0	7					
96	620261-010	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0					
96	620261-046	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
96	621	12	6	0	5	0	1	0	0	0	0	0	0	0	0	0					
96	621261-019	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0					
96	621361-014	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
96	622	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
96	625	12	4	0	0	0	0	0	0	8	1	1	7	3	0	3					
96	625261-010	7	2	0	2	1	0	0	1	0	0	0	0	0	0	0					
96	627	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0					
96	629	1	0	0	0	0	0	0	0	1	1	0	1	1	1	1					
96	629281-022	3	2	0	1	1	0	0	0	5	1	1	1	0	0	0					
96	630	2	2	0	1	1	0	0	0	1	1	1	1	0	0	0					
96	631	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0					
96	632	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0					
96	633	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0					
96	633281-018	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0					
96	637	13	7	0	4	1	1	0	1	4	4	4	2	2	2	2					
96	637261-014	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
96	637261-026	5	1	0	0	1	0	0	0	0	0	0	0	0	0	0					
96	637684-014	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
96	638	35	19	0	6	2	3	0	5	9	1	3	5	1	4	4					
96	636261-018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
96	636281-014	28	15	0	5	1	3	0	4	5	1	5	3	2	2	2					
96	636684-018	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0					
96	639	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0					
96	640	1	1	0	0	0	0	0	1	1	1	1	0	0	0	0					
96	649	9	3	0	2	1	1	0	1	3	0	1	1	0	0	0					
96	650	8	7	0	2	1	0	0	0	0	0	0	0	0	0	0					
96	651	13	5	0	2	1	0	0	0	1	1	1	0	0	0	0					
96	652	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0					
96	653	22	9	1	0	0	2	0	1	0	2	0	1	1	1	1					
96	659	2	2	0	0	0	1	0	0	0	0	0	0	0	0	0					
96	660	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0					
96	660280-010	5	4	0	0	0	0	0	0	0	0	0	0	0	0	0					
96	665	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
96	666	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
96	667	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
96	669	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
96	677	2	5	0	1	1	0	1	3	0	0	0	0	0	0	0					

ITEM NO	OCCUPATIONAL CODE	TOTAL REGIS- TERED APPS	TOTAL FEMALE	VETERAN	AGE GROUPS	MINOR- ITY	ECONOM- ICALLY DISAD- VANT- AGED	J	K	L	M	N	O
					UNDER 22	45 AND OLDER							
96	720	3	3	0	0	1	0	0	1	0	0	0	0
96	720201-018	2	2	0	0	1	0	0	1	0	0	0	0
96	721	4	2	2	0	2	0	0	2	0	0	0	0
96	721004-022	1	0	0	0	0	0	0	0	0	0	0	0
96	722	1	0	0	0	0	0	0	0	0	0	0	0
96	723	23	11	6	2	3	3	7	7	7	2	7	0
96	723001-010	1	1	0	1	0	0	1	1	0	0	0	0
96	724	11	9	8	0	3	0	6	0	1	2	2	0
96	725	5	3	1	0	1	0	0	0	0	0	0	0
96	726	468	276	229	15	38	43	35	170	126	72	89	66
96	726201-010	5	3	2	0	1	1	0	1	4	4	3	2
96	726304-010	10	5	4	0	0	0	1	1	3	1	1	0
96	727	4	4	3	0	0	0	1	3	0	0	0	0
96	728	23	13	11	0	1	5	1	6	11	11	2	9
96	729	35	23	15	0	6	3	0	7	8	3	2	4
96	729301-010	3	1	1	0	0	0	0	0	0	0	0	0
96	729304-010	4	1	0	0	1	0	0	0	0	0	0	0
96	729607-010	9	6	4	0	1	0	0	3	6	1	2	4
96	732	1	1	0	0	0	1	0	1	0	0	0	0
96	737	2	1	0	1	0	1	0	0	0	0	0	0
96	739	6	5	4	1	2	2	2	5	0	0	0	0
96	740	6	3	0	1	1	0	0	1	0	0	0	0
96	741	17	12	0	4	3	3	2	6	11	4	8	2
96	741604-026	7	5	0	2	2	1	2	3	7	3	3	2
96	741607-018	3	3	2	0	0	0	0	2	2	0	2	0
96	742	1	1	0	0	1	0	0	0	0	0	0	0
96	749	2	0	0	0	0	0	0	0	1	0	1	0
96	750	1	1	0	0	0	0	0	1	0	0	0	0
96	752	1	1	0	1	0	0	0	0	2	2	2	0
96	753	4	4	2	0	2	0	0	1	1	0	1	0
96	754	4	4	0	1	0	0	0	3	7	5	1	2
96	754607-010	3	3	0	0	0	0	0	2	4	2	1	0
96	759	4	2	2	0	0	0	0	2	1	1	1	0
96	761	2	0	0	0	0	0	0	0	1	1	2	0
96	763	0	0	0	0	0	0	0	0	0	0	0	0
96	769	3	0	0	0	0	0	0	0	1	1	1	0
96	770	4	3	1	1	1	1	2	2	0	0	0	0
96	771	2	2	1	0	0	0	0	0	0	0	0	0
96	772	4	0	0	0	1	0	0	0	0	0	0	0
96	773	1	0	0	0	0	0	0	0	0	0	0	0
96	775	1	0	0	0	0	0	0	0	0	0	0	1

TABLE 96

APPLICANTS AND NONAGRICULTURAL JOB OPENINGS BY OCCUPATION

MASSACHUSETTS

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TABLE 96

ITEM NO	OCCUPATIONAL CODE	TOTAL REGIS- TERED APPS	TOTAL FEMALE	VETERAN	AGE GROUPS	MINOR- ITY	ECONOM- ICALLY DISAD- VANT- AGED	J	I	H	G	F	E	D	C	B	A	NONAGRICULTURAL OPENINGS	OPENING, UNFILLED OPEN	REC'D	FILLED	TOTAL	30 DAYS OR MORE
96	777	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	779	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	780	10	5	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
96	780381-018	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	780682-018	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	781	36	20	14	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
96	781687-010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	792	12	8	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	782331-022	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	782684-053	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	783	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	784	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	795	11	7	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	785251-010	3	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	785361-010	6	4	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	786	26	21	21	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	787	84	44	44	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	787692-046	71	35	35	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	789	63	44	31	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	799	15	8	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	789687-070	4	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	794	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	801	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	801361-014	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	804	16	3	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	804281	16	3	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	804291-010	14	3	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	805	3	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	807	31	13	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	807381-010	23	11	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	809	5	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	809684-010	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	810	26	8	1	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	810384-014	23	7	1	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	811	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	811684-014	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	812	30	19	19	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	813	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	815	11	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	819	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	819384-010	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	820	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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APPLICANTS AND NONAGRICULTURAL JOB OPENINGS BY OCCUPATION

ITEM NO	OCCUPATIONAL CODE	TOTAL	REGIS-	TOTAL	FEMALE	VETERAN	AGE GROUPS	MINOR-ITY	ECONOM-ICALLY DISAD-VANT-AGED	J	I	H	G	F	E	D	C	B	A
95	821	2	1	2	0	0	0	1	0	0	1	1	0	1	0	1	1	0	0
95	822	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	823	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	824	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	825	36	17	17	0	0	3	2	0	0	0	2	0	6	0	0	10	0	0
95	826	22	9	9	0	0	1	2	0	0	0	1	0	5	0	0	7	0	0
95	827	4	1	1	0	0	0	1	0	0	0	1	0	0	0	0	2	0	0
95	828	1	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
95	829	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	830	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	831	3	2	2	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0
95	832	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
95	833	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	834	13	10	10	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0
95	835	9	6	6	1	0	1	1	0	0	0	1	0	0	0	0	0	0	0
95	836	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	837	25	8	8	0	0	5	1	0	0	0	1	0	1	0	0	5	0	0
95	838	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	839	23	8	8	0	0	5	1	0	0	0	1	0	0	0	0	4	0	0
95	840	96	39	39	0	0	7	8	1	0	0	8	0	14	0	0	1	0	0
95	841	97	37	37	0	0	7	8	1	0	0	8	0	14	0	0	1	0	0
95	842	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	843	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	844	26	17	17	1	0	3	2	0	0	0	2	0	5	0	0	0	0	0
95	845	7	4	4	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
95	846	20	13	13	1	1	3	2	0	0	0	2	0	0	0	0	0	0	0
95	847	19	12	12	1	1	3	2	0	0	0	2	0	0	0	0	0	0	0
95	848	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	849	20	13	13	0	0	2	1	0	0	0	1	0	0	0	0	0	0	0
95	850	12	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	851	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	852	10	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	853	13	11	11	2	0	5	1	0	0	0	1	0	2	0	0	0	0	0
95	854	204	135	135	0	0	37	13	4	0	0	13	0	28	0	0	119	0	0
95	855	8	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	856	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	857	107	65	65	0	0	19	7	3	0	0	7	0	14	0	0	117	0	0
95	858	41	27	27	0	0	3	4	1	0	0	4	0	5	0	0	6	0	0
95	859	19	11	11	0	0	1	2	1	0	0	2	0	2	0	0	1	0	0
95	860	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	861	54	18	18	0	0	2	2	0	0	0	2	0	3	0	0	24	0	0
95	862	8	5	5	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
95	863	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	864	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	865	107	65	65	0	0	19	7	3	0	0	7	0	14	0	0	117	0	0
95	866	41	27	27	0	0	3	4	1	0	0	4	0	5	0	0	6	0	0
95	867	19	11	11	0	0	1	2	1	0	0	2	0	2	0	0	1	0	0
95	868	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	869	54	18	18	0	0	2	2	0	0	0	2	0	3	0	0	24	0	0
95	870	8	5	5	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0

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MASSACHUSETTS

SMSA 4550

TABLE 96

ITEM NO	OCCUPATIONAL CODE	TOTAL	REGIS- TERED	APPS	ACTIVE	ANYTIME	THIS FY	C	D	E	F	G	H	I	J	K	L	M	N	O
96	862381-030	9	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
96	862381-034	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	862684-014	22	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	863	15	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	863381-014	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	864	8	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	865	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	866	33	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	866381-010	29	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	869	474	220	5	3	3	3	41	17	10	10	39	10	2	8	72	188	172	23	23
96	869364-014	236	117	3	0	0	0	32	10	10	10	39	10	2	6	39	102	100	3	3
96	869684-010	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	869687-026	182	77	2	3	3	3	7	6	6	6	24	6	6	1	24	78	65	19	19
96	869	18	10	0	0	0	0	3	3	3	3	1	3	3	0	1	0	0	0	0
96	869	82	41	1	0	0	0	14	9	9	9	5	4	3	0	10	20	11	5	4
96	869381-010	51	23	0	0	0	0	5	4	4	4	4	4	2	6	6	10	6	3	2
96	869684-022	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	900	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	902	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	903	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	904	56	27	0	0	0	0	21	8	8	8	1	3	3	8	17	10	1	6	3
96	905	136	65	1	1	1	1	17	5	5	5	3	6	3	12	12	8	5	3	3
96	905663-014	117	56	1	1	1	1	13	3	3	3	1	4	1	9	12	1	10	3	3
96	906	100	40	2	2	2	2	14	15	15	15	9	4	1	7	12	10	10	3	3
96	906683-022	95	36	2	2	2	2	12	15	15	15	7	3	1	0	12	10	10	3	3
96	909	7	2	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0
96	910	12	6	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
96	911	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
96	912	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	912364-010	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	913	43	27	0	0	0	0	3	1	1	1	1	3	1	17	6	2	5	2	2
96	913463-010	28	19	1	1	1	1	2	0	0	0	0	0	0	14	5	1	1	2	2
96	913463-018	8	4	1	1	1	1	0	0	0	0	0	0	0	2	0	0	0	0	0
96	914	6	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
96	915	38	14	1	1	1	1	1	7	7	7	1	1	0	6	25	6	8	10	8
96	915467-010	27	11	0	0	0	0	1	5	5	5	5	1	0	5	15	0	5	5	4
96	915473-010	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	1	1
96	916	13	10	1	1	1	1	2	1	1	1	1	1	0	3	2	2	0	0	0
96	916683-014	6	3	1	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0
96	916687-014	6	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
96	920	285	149	121	6	6	6	6	25	26	26	108	27	27	108	58	34	60	40	35
96	920567-018	162	106	93	2	2	2	2	15	22	22	82	22	22	82	56	32	36	26	26

ITEM NO	OCCUPATIONAL CODE	TOTAL REGIS- TERED APPS	TOTAL FEMALE	VETERAN	AGE GROUPS	MINOR- ITY	ECONOM- ICALLY RE- CEIVED	TOTAL OPENING, UNFILLED REC'D FEDERAL CON- TRACTOR JOB LISTING	L	M	N	0
					UNDER 22	45 AND OLDER	DISAD- VANT- AGED					
96	920685-078	38	20	14	2	5	1	3	9	1	9	7
96	920687-014	3	1	1	0	1	0	0	0	0	10	0
96	920687-126	6	2	2	0	0	2	0	0	0	0	0
96	921	68	37	1	8	11	7	2	6	2	4	1
96	921683-050	60	33	0	8	11	5	2	5	1	3	1
96	922	72	22	3	4	8	2	2	58	29	30	25
96	922687-058	60	16	2	4	6	2	2	57	29	30	25
96	929	302	115	14	13	57	11	13	108	60	40	23
96	929687-022	11	2	0	0	1	0	1	0	0	0	0
96	929687-030	263	101	10	12	52	9	11	105	59	40	23
96	930	3	1	0	0	0	0	0	0	0	0	0
96	932	1	0	0	0	0	0	0	0	0	0	0
96	939	5	4	0	1	2	0	0	3	0	0	0
96	950	7	2	0	0	0	0	0	1	1	1	1
96	950382-026	4	0	0	0	0	0	0	0	0	0	0
96	951	6	3	0	3	0	0	0	1	1	0	0
96	952	1	1	0	1	0	0	0	0	0	0	0
96	953	1	0	0	0	0	0	0	0	0	0	0
96	954	3	2	0	0	0	0	1	1	1	0	0
96	954382-014	2	1	0	0	0	0	0	0	0	0	0
96	955	2	1	0	0	0	0	0	0	0	0	0
96	959	1	1	1	0	0	0	0	0	0	0	0
96	959361-010	1	1	1	0	0	0	0	0	0	0	0
96	960	1	1	0	1	0	1	0	0	0	0	0
96	961	1	0	0	0	0	0	0	0	0	0	0
96	962	1	0	0	0	0	0	0	0	0	0	0
96	969	1	1	0	0	0	0	0	0	0	0	0
96	970	14	12	2	1	5	1	3	4	0	1	1
96	971	4	1	1	0	0	0	0	0	0	0	0
96	972	2	0	0	0	0	0	0	0	0	0	0
96	973	20	15	0	5	0	0	0	0	0	0	0
96	976	13	8	4	0	0	0	1	0	0	0	0
96	977	2	2	2	0	0	0	0	0	0	0	0
96	979	8	6	2	3	3	1	0	1	0	0	0
96	TOTAL OF INVALID OCCUPATIONAL CODES	947	552	413	38	50	116	77	503	14	29	198

PROFESSIONAL, TECHNICAL, AND MANAGERIAL WORK

00,01 ARCHITECTURE AND ENGINEERING

001 Architecture
 002 Aeronautical engineering
 003 Electrical engineering
 005 Civil engineering
 006 Ceramic engineering
 007 Mechanical engineering
 008 Chemical engineering
 010 Mining and petroleum engineering
 011 Metallurgy and metallurgical engineering
 012 Industrial engineering
 013 Agricultural engineering
 014 Marine engineering
 015 Nuclear engineering
 017 Drafting and related work
 018 Surveying and related work
 019 Architecture and engineering, n.e.c.

02 MATHEMATICS AND PHYSICAL SCIENCES

020 Mathematics
 021 Astronomy
 022 Chemistry
 023 Physics
 024 Geology
 025 Meteorology
 029 Mathematics and physical sciences, n.e.c.

04 LIFE SCIENCES

040 Agricultural sciences
 041 Biological sciences
 045 Psychology
 049 Life sciences, n.e.c.

05 SOCIAL SCIENCES

050 Economics
 051 Political science
 052 History
 054 Sociology
 055 Anthropology
 059 Social sciences, n.e.c.

07 MEDICINE AND HEALTH

070 Medicine and surgery
 071 Osteopathy
 072 Dentistry
 073 Veterinary medicine and surgery
 074 Pharmacy
 075 Nursing
 077 Dietetic work
 078 Medical and dental technology
 079 Medicine and health, n.e.c.

09 EDUCATION

090 College and university education
 091 Secondary school education
 092 Primary school and kindergarten education
 094 Education of the handicapped
 096 Home economics, agriculture, and related education
 097 Vocational education, n.e.c.
 099 Education, n.e.c.

10 MUSEUM, LIBRARY, AND ARCHIVAL SCIENCES

100 Library work
 101 Archival science work
 102 Museum and related work
 109 Museum, library, and archival sciences, n.e.c.

11 LAW AND JURISPRUDENCE

110 Legal work
 111 Judicial work
 119 Law and jurisprudence, n.e.c.

12 RELIGION AND THEOLOGY

120 Ministerial work
 129 Religion and theology, n.e.c.

13 WRITING

130 Freelance writing
 131 Writing and editing, motion pictures, radio and TV
 132 Writing and editing, publications
 137 Interpreting and translating
 139 Writing, n.e.c.

14 ART

141 Commercial art
 142 Designing
 143 Photography
 144 Painting and related work
 148 Sculpturing and related work
 149 Art work, n.e.c.

15 ENTERTAINMENT AND RECREATION

150 Dramatics
 151 Dancing
 152 Music
 153 Athletics and sports
 159 Entertainment and recreation, n.e.c.

16 ADMINISTRATIVE SPECIALIZATIONS

160 Accounting and auditing
 161 Budget and management analysis
 162 Purchasing management
 163 Sales and distribution management
 164 Advertising management
 165 Public relations management
 166 Personnel and training administration
 168 Inspecting and investigating, managerial and pub. serv.
 169 Administrative specialties, n.e.c.

18 MANAGERS AND OFFICIALS, N.E.C.

180 Agriculture, forestry, and fishing management
 181 Mining management
 182 Construction management
 183 Manufacturing industry management
 184 Transportation, communication, and utilities, mgt.
 185 Wholesale and retail trade management
 186 Finance, insurance, and real estate management
 187 Service industry management
 188 Public administration management
 189 Miscellaneous managerial work, n.e.c.

19 PROFESSIONAL, TECHNICAL, & MANAGERIAL

- 191 Business relations work, n.e.c.
- 193 Radio operating
- 194 Sound recording, transcribing, & reproducing
- 195 Social and welfare work
- 196 Airplane piloting & navigating
- 197 Managerial & technical work, water transportation
- 198 Managerial work, railroad transportation
- 199 Misc. prof., tech., & managerial work, n.e.c.

CLERICAL AND SALES WORK

20 STENOGRAPHY, TYPING, FILING & RELATED OCCUPATIONS

- 201 Secretarial work
- 202 Stenography
- 203 Typing
- 204 Correspondence work
- 205 Personnel work
- 206 Filing
- 207 Duplicating-machine work
- 208 Miscellaneous office machine work
- 209 Stenography, typing, filing, & related work, n.e.c.

21 COMPUTING & ACCOUNT-RECORDING

- 210 Bookkeeping
- 211 Cashiering
- 212 Teller service
- 213 Automatic data processing
- 214 Billing-machine work
- 215 Bookkeeping-machine work
- 216 Computing-machine work
- 217 Account-recording-machine work, n.e.c.
- 219 Computing & account recording, n.e.c.

22 MATERIAL & PRODUCTION RECORDING

- 221 Clerical work, production
- 222 Clerical work, shipping and receiving
- 223 Stock checking & related work
- 224 Weighing
- 229 Material & production recording, n.e.c.

23 INFORMATION & MESSAGE DISTRIBUTION

- 230 Messenger and related work
- 231 Mail sorting, stamping, recording, routing, & rel. work
- 232 Clerical work, post office
- 233 Mail delivery
- 234 Mail-preparing & mail-handling-machine work
- 235 Telephone work
- 236 Telegraph work
- 237 Reception & information dispensing work
- 239 Information & message distribution, n.e.c.

24 MISCELLANEOUS CLERICAL

- 240 Collecting
- 241 Adjusting
- 242 Hotel desk work, n.e.c.
- 243 Clerical work, direct service, n.e.c.
- 249 Miscellaneous clerical work, n.e.c.

25 SALES AGENTS, SERVICES

- 250 Saleswork, real estate and insurance
- 251 Saleswork, securities
- 252 Saleswork, business and financial services
- 253 Saleswork, radio and television broadcasting services
- 254 Saleswork, hotel services
- 255 Saleswork, transportation services
- 256 Saleswork, maintenance and repair services
- 257 Saleswork, utilities
- 258 Saleswork, printing and advertising
- 259 Saleswork, services, n.e.c.

26, 27, 28 SALES AGENTS AND SALESPERSONS, COMMODITIES

- 260 Saleswork, horticultural and nursery products
- 261 Saleswork, agricultural products, n.e.c.
- 262 Saleswork, foodstuffs, beverages, and tobacco
- 263 Saleswork, textiles, textile products, and apparel
- 264 Saleswork, leather and leather products
- 265 Saleswork, paper and paper products
- 266 Saleswork, chemicals and drug preparations
- 267 Saleswork, fuel and petroleum products
- 268 Saleswork, plastics products
- 270 Saleswork, rubber products
- 271 Saleswork, stone, clay, and glass products
- 273 Saleswork, metal and metal products
- 274 Saleswork, housefurnishings
- 275 Saleswork, hotels and restaurant equipment and supplies
- 276 Saleswork, industrial, construction, mining and drilling equipment and supplies
- 277 Saleswork, farm and garden equipment and supplies
- 278 Saleswork, household appliances and electrical machinery, equipment, and supplies
- 280 Saleswork, transportation equipment
- 281 Saleswork, business and commercial machines, equipment, and supplies
- 282 Saleswork, medical and dental equipment, supplies and appliances
- 283 Saleswork, jewelry and silverware
- 284 Saleswork, scientific apparatus
- 285 Saleswork, photographic equipment and supplies
- 286 Saleswork, amusement and sporting goods
- 287 Saleswork, music and musical instruments
- 289 Saleswork, commodities, n.e.c.

29 MERCHANDISING OCCUPATIONS, EXCEPT SALES AGENTS

- 290 Sales clerking
- 291 Peddling
- 292 Route work
- 293 Canvassing and soliciting
- 294 Auctioneering
- 296 Shopping
- 297 Demonstrating and modeling
- 298 Display work
- 299 Miscellaneous merchandising work, n.e.c.

SERVICES

30 DOMESTIC SERVICE

- 301 Day work
- 302 Laundry work, private family
- 303 Housekeeping, private family
- 304 Caretaker and yard work
- 305 Domestic cooking

306 Housework, domestic
 307 Child monitor
 309 Domestic services, n.e.c.

31 FOOD AND BEVERAGE PREPARATION AND SERVICE

310 Food and beverage service, except ship steward/stewardess
 311 Food serving
 312 Bartending
 313 Cooking, large hotels and restaurants
 314 Cooking, small hotels and restaurants
 315 Miscellaneous cooking, except domestic
 316 Meat cutting, except in slaughtering and packing houses
 317 Miscellaneous food and beverage preparation
 318 Kitchen work, n.e.c.
 319 Food and beverage preparation and service, n.e.c.

32 LODGING AND RELATED SERVICE

320 Boardinghouse and lodginghouse keeping
 321 Housekeeping, hotels and institutions
 323 Cleaning & related services, hotels, restaurants,
 and related establishments
 324 Bellhop and related services
 329 Lodgings and related services, n.e.c.

33 BARBERING, COSMETOLOGY, AND RELATED SERVICE

330 Barbering and related services
 331 Manicuring
 332 Beautician services
 333 Make-up, theatrical
 334 Masseur and related services
 335 Bath attendant work
 338 Embalming
 339 Barbering, cosmetology, and related service, n.e.c.

34 AMUSEMENT AND RECREATION SERVICE

340 Bowling alley and billiard parlor services
 341 Golf course, tennis court, skating rink, & rel. serv.
 342 Amusement device and concession work
 343 Gambling hall services
 344 Ushering
 346 Wardrobe and dressing-room services
 349 Amusement and recreation services, n.e.c.

35 MISCELLANEOUS PERSONAL SERVICE

350 Ship steward/stewardess service
 351 Rail passenger service
 352 Host/hostess and steward/stewardess service, n.e.c.
 353 Guide service, except hunting and fishing
 354 Unlicensed birth attendant and practical nursing serv.
 355 Attendant work, hosps., morgues, & rel. health serv.
 356 Animal care, n.e.c.
 357 Baggage porter service
 358 Checkroom, locker room, and restroom services
 359 Miscellaneous personal services, n.e.c.

36 APPAREL & FURNISHINGS SERVICE

361 Laundering service
 362 Dry cleaning service
 363 Pressing service
 364 Dyeing & related services
 365 Shoe & luggage repair & related services
 366 Shoe shining & related services
 369 Apparel & furnishings services, n.e.c.

37 PROTECTIVE SERVICE

371 Bridge tending & crossing guard services
 372 Guard and related services
 373 Fire protection service
 375 Police & related work, public service
 376 Police & related work, except in public service
 377 Law enforcement work, n.e.c.
 378 Military service
 379 Protective services, n.e.c.

38 BUILDING AND RELATED SERVICE

381 Cleaning and related services
 382 Janitorial services
 388 Elevator services
 389 Building and related services, n.e.c.

FARMING, FISHERY, FORESTRY, & RELATED WORK

40 PLANT FARMING

401 Grain farming
 402 Cotton farming
 403 Vegetable farming
 404 Fruit and nut farming
 405 Crop specialty farming
 406 Horticultural specialty work
 407 Gardening & groundskeeping
 409 Plant farming, n.e.c.

41 ANIMAL FARMING

411 Dairy farming
 412 Poultry farming
 413 Livestock farming
 419 Animal farming, n.e.c.

42 MISCELLANEOUS FARMING & RELATED

421 General farming
 422 Farm irrigation
 423 Farm couples
 424 Farm machinery operating, n.e.c.
 429 Miscellaneous farming & related work, n.e.c.

43 FISHERY AND RELATED

431 Net, seine, and trap fishing
 432 Line fishing
 433 Fishing, miscellaneous gear
 435 Whaling
 436 Marine life cultivation & related work
 437 Sponge & seaweed gathering
 439 Fishery & related work, n.e.c.

44 FORESTRY

- 441 Forest conservation work
- 442 Forest products production, except logging
- 449 Forestry, n.e.c.

45 HUNTING, TRAPPING AND RELATED

- 451 Hunting and trapping
- 452 Guide services, hunting and fishing

46 AGRICULTURE SERVICE

- 461 Cotton ginning and compressing
- 465 Blight and pest control and bindweed eradicator
- 466 Animal care
- 467 Animal science services
- 469 Agricultural services, n.e.c.

PROCESSING

50 PROCESSING OF METAL

- 500 Electroplating
- 501 Dip plating
- 502 Melting, pouring, casting, and related work
- 503 Pickling, cleaning, degreasing, and related work
- 504 Heat treating
- 505 Metal spraying, coating, and related work
- 509 Metal processing, n.e.c.

51 ORE REFINING AND FOUNDRY

- 510 Mixing and related work
- 511 Separating, filtering, and related work
- 512 Melting
- 513 Roasting
- 514 Pouring and casting
- 515 Crushing and grinding
- 518 Molding, coremaking, and related work
- 519 Ore refining and foundry work, n.e.c.

52 PROCESSING OF FOOD, TOBACCO AND RELATED PRODUCTS

- 520 Mixing, compounding, blending, kneading, shaping, and related work
- 521 Separating, crushing, milling, chopping, grinding, and related work
- 522 Culturing, melting, fermenting, distilling, saturating, pickling, aging, and related work
- 523 Heating, rendering, melting, drying, cooling, freezing, and related work
- 524 Coating, icing, decorating, and related work
- 525 Slaughtering, breaking, curing, and related work
- 526 Cooking and baking, n.e.c.
- 529 Processing, food and related products, n.e.c.

53 PROCESSING OF PAPER AND RELATED MATERIALS

- 530 Grinding, beating, and mixing
- 532 Cooking and drying
- 533 Cooling, bleaching, screening, washing, and rel. work
- 534 Calendering, sizing, coating, and related work
- 535 Forming, n.e.c.
- 539 Processing, paper and related materials, n.e.c.

54 PROCESSING OF PETROLEUM, COAL, NATURAL AND MANUFACTURED GAS AND RELATED PRODUCTS

- 540 Mixing and blending
- 541 Filtering, straining, and separating
- 542 Distilling, subliming, and carbonizing
- 543 Drying, heating, and melting
- 544 Grinding and crushing
- 546 Reacting, n.e.c.
- 549 Processing, petroleum and related products, n.e.c.

55 CHEMICALS, PLASTICS, SYNTHETICS, RUBBER, PAINT, AND RELATED PRODUCTS

- 550 Mixing and blending
- 551 Filtering, straining, and separating
- 552 Distilling
- 553 Heating, baking, seasoning, melting, and heat treating
- 554 Coating, calendering, laminating, and finishing
- 555 Grinding and crushing
- 556 Casting and molding, n.e.c.
- 557 Extruding
- 558 Reacting, n.e.c.
- 559 Processing, chemicals and related products, n.e.c.

56 WOOD AND WOOD PRODUCTS

- 560 Mixing and related work
- 561 Wood preserving and related work
- 562 Saturating and related work, n.e.c.
- 563 Drying, seasoning, and related work
- 569 Processing, wood and wood products, n.e.c.

57 STONE, CLAY, GLASS, AND RELATED PRODUCTS

- 570 Crushing, grinding, and mixing
- 571 Separating
- 572 Melting
- 573 Baking, drying, and heat treating
- 574 Impregnating, coating, and glazing
- 575 Forming
- 579 Processing, nonmetallic minerals & rel. products, n.e.c.

58 LEATHER, TEXTILES, AND RELATED PRODUCTS

- 580 Shaping, blocking, stretching, and centering
- 581 Separating, filtering, and drying
- 582 Washing, steaming, and saturating
- 583 Ironing, pressing, glazing, staking, calendering, and embossing
- 584 Mercerizing, coating, and laminating
- 585 Singeing, cutting, shearing, shaving, and napping
- 586 Felting and fulling
- 587 Brushing and shrinking
- 589 Processing, leather and textiles, n.e.c.

59 PROCESSING OCCUPATIONS, N.E.C.

- 590 Processing, assorted materials
- 599 Miscellaneous processing, n.e.c.

MACHINE TRADES

60 METAL MACHINING

600 Machining and related work
 601 Toolmaking and related work
 602 Gear machining
 603 Abrading
 604 Turning
 605 Milling and planing
 606 Boring
 607 Sawing
 609 Metal machining, n.e.c.

61 METALWORKING OCCUPATIONS, N.E.C.

610 Hammer forging
 611 Press forging
 612 Forging, n.e.c.
 613 Sheet and bar rolling
 614 Extruding and drawing
 615 Punching and shearing
 616 Fabricating machine work
 617 Metal forming, n.e.c.
 619 Miscellaneous metalworking, n.e.c.

62, 63 MECHANICS AND MACHINERY REPAIRERS

620 Motorized vehicle and engineering equipment repairing
 621 Aircraft repairing
 622 Rail equipment repairing
 623 Marine equipment repairing
 624 Farm machinery repairing
 625 Engine, power transmission, and rel. equipment rep.
 626 Metalworking machinery repairing
 627 Printing and publishing machinery repairing
 628 Textile machinery and equipment repairing
 629 Special industry machinery repairing
 630 General industry machinery repairing
 631 Powerplant machinery repairing
 632 Ordnance and accessory repairing
 633 Business and commercial machine repairing
 637 Utility equipment repairing
 638 Miscellaneous machine installation and repairing
 639 Mechanical repairing, n.e.c.

64 PAPERWORKING

640 Paper cutting, winding, and related work
 641 Folding, creasing, scoring, and gluing
 642 Paper sewing
 643 Paper corrugating
 644 Paper fastening, n.e.c.
 649 Paperworking, n.e.c.

65 PRINTING

650 Typesetting and composing
 651 Printing press work
 652 Printing machine work
 653 Bookbinding and related work
 654 Typecasting and related work
 659 Printing, n.e.c.

66 WOOD MACHINING

660 Cabinetmaking
 661 Patternmaking
 662 Sanding
 663 Shearing and shaving
 664 Turning
 665 Milling and planing
 666 Boring
 667 Sawing
 668 Chipping
 669 Wood machining, n.e.c.

67 MACHINING STONE, CLAY, GLASS, & RELATED MATERIALS

670 Stonecutting and related work
 673 Abrading and polishing
 674 Turning
 675 Planing and shaping, n.e.c.
 676 Boring and punching
 677 Chipping, cutting, sawing, & related work
 679 Machining, nonmetallic minerals & rel. materials, n.e.c.

68 TEXTILE

680 Carding, combing, drawing, and related work
 681 Twisting, beaming, warping, and related work
 682 Spinning
 683 Weaving and related work
 684 Hosiery knitting
 685 Knitting, except hosiery
 686 Punching, cutting, forming, & related work
 689 Textile machine work, n.e.c.

69 MACHINE TRADES OCCUPATIONS, N.E.C.

690 Plastics, synthetics, rubber, & leather working
 691 Insulated wire & cable fabricating
 692 Fabrication of products from assorted materials
 693 Modelmaking, patternmaking, & related work
 694 Fabrication of ordnance, ammunition, & related products, n.e.c.
 699 Miscellaneous machine work, n.e.c.

BENCH WORK

70 FABRICATION, ASSEMBLY, & REPAIR OF METAL PRODUCTS, N.E.C.

700 Fabrication, assembly, & repair of jewelry, silverware, & related products
 701 Fabrication, assembly, & repair of tools & related products
 703 Sheet-metal products assembly & repair, n.e.c.
 704 Engraving, etching, & related work
 705 Filing, grinding, buffing, cleaning, & polishing, n.e.c.
 706 Metal unit assembling & adjusting, n.e.c.
 709 Fabrication, assembly, & repair of metal products, n.e.c.

- 71 FABRICATION & REPAIR OF SCIENTIFIC & MEDICAL APPARATUS, PHOTOGRAPHIC & OPTICAL GOODS, WATCHES & CLOCKS, & RELATED PRODUCTS
- 710 Fabrication & repair of instruments for measuring, controlling, & indicating physical characteristics
- 711 Fabrication & repair of optical instruments & lenses
- 712 Fabrication & repair of surgical, medical, & dental instruments & supplies
- 713 Fabrication & repair of ophthalmic goods
- 714 Fabrication & repair of photographic equipment and supplies
- 715 Fabrication & repair of watches, clocks & parts
- 716 Fabrication & repair of engineering & scientific instruments & equipment, n.e.c.
- 719 Fabrication & repair of scientific & medical apparatus, photographic & optical goods, watches & clocks, & related products, n.e.c.
- 72 ASSEMBLY & REPAIR OF ELECTRICAL EQUIPMENT
- 720 Assembly & repair of radio & television receiving sets & phonographs
- 721 Assembly & repair of motors, generators, & related products
- 722 Communications equipment assembly & repair
- 723 Assembly & repair of electrical appliances & fixtures
- 724 Winding & assembly of coils, magnets, armatures, & related products
- 725 Assembly of light bulbs & electronic tubes
- 726 Assembly & repair of electronic components & accessories, n.e.c.
- 727 Storage battery assembly
- 728 Fabrication of electrical wire and cable
- 729 Assembly & repair of electrical equipment, n.e.c.
- 73 FABRICATION & REPAIR OF PRODUCTS MADE FROM ASSORTED MATERIALS
- 730 Fabrication & repair of musical instruments & parts
- 731 Fabrication & repair of games and toys
- 732 Fabrication & repair of sporting goods
- 733 Fabrication & repair of pens, pencils, & office & artists' materials, n.e.c.
- 734 Fabrication of notions
- 735 Fabrication & repair of jewelry, n.e.c.
- 736 Fabrication & repair of ordnance & accessories
- 737 Fabrication of ammunition, fireworks, explosives & related products
- 739 Fabrication & repair of products made from assorted materials, n.e.c.
- 74 PAINTING, DECORATING, & RELATED OCCUPATIONS
- 740 Brush painting
- 741 Spray painting
- 742 Staining, waxing, & related work
- 749 Painting, decorating, & related work, n.e.c.
- 75 FABRICATION & REPAIR OF PLASTICS, SYNTHETICS, RUBBER, AND RELATED PRODUCTS
- 750 Fabrication & repair of tires, tubes, tire treads, & related products
- 751 Laying out and cutting, n.e.c.
- 752 Fitting, shaping, cementing, finishing, and rel. wk., n.e.c.
- 753 Fabrication and repair of rubber and plastic footwear
- 754 Fabrication and repair of miscellaneous plastic products
- 759 Fabrication and repair of plastics, synthetics, rubber, and related products, n.e.c.
- 76 FABRICATION AND REPAIR OF WOOD PRODUCTS
- 760 Bench carpentry and related work
- 761 Laying out, cutting, carving, shaping, and sanding, n.e.c.
- 762 Assembly of wood products, n.e.c.
- 763 Fabrication and repair of furniture, n.e.c.
- 764 Cooperage
- 769 Fabrication and repair of wood products, n.e.c.
- 77 FABRICATION AND REPAIR OF SAND, STONE, CLAY, AND GLASS PRODUCTS
- 770 Fabrication and repair of jewelry, ornaments, and related products
- 771 Stone cutting and carving
- 772 Glass blowing, pressing, shaping, and related work, n.e.c.
- 773 Coloring and decorating brick, tile, and related products
- 774 Fabrication and repair of pottery and porcelain ware
- 775 Grinding, filing, polishing, frosting, etching, cleaning, and related work, n.e.c.
- 776 Fabrication and repair of asbestos and polishing products, abrasives, and related materials
- 777 Modelmaking, patternmaking, moldmaking, and related work
- 779 Fabrication and repair of sand, stone, clay and glass products, n.e.c.
- 78 FABRICATION AND REPAIR OF TEXTILE, LEATHER, AND RELATED PRODUCTS
- 780 Upholstering and mattress and bedspring fabrication and repair
- 781 Laying out, marking, cutting, and punching, n.e.c.
- 782 Handsewing, mending, embroidering, knitting, and related work, n.e.c.
- 783 Fur working
- 784 Fabrication and repair of hats, caps, gloves, and related products
- 785 Tailoring and dressmaking
- 786 Machine sewing, garment
- 787 Machine sewing, nongarment
- 788 Fabrication and repair of footwear
- 789 Fabrication and repair of textiles, leather, and related products, n.e.c.
- 79 BENCH WORK OCCUPATIONS, N.E.C.
- 790 Preparation of food, tobacco, and related products, n.e.c.
- 794 Fabrication of paper products, n.e.c.
- 799 Miscellaneous bench work, n.e.c.

STRUCTURAL WORK

80 METAL FABRICATING, N.E.C.

- 800 Riveting
- 801 Fitting, bolting, screwing, & related work
- 804 Sheet metal work
- 805 Boilermaking & related work
- 806 Transportation equipment assembling & related work
- 807 Body work, transportation equipment
- 809 Miscellaneous metal fabricating, n.e.c.

81 WELDERS, FLAME CUTTERS, AND RELATED

- 810 Arc welding
- 811 Gas welding
- 812 Combination arc and gas welding
- 813 Resistance welding
- 814 Brazing, braze-welding, & soldering
- 815 Lead burning
- 816 Flame and arc cutting
- 819 Welding, flame cutting, & related work, n.e.c.

82 ELECTRICAL ASSEMBLING, INSTALLING, & REPAIRING

- 820 Generator, motor, & related powerplant equipment assembly, installation, & repair
- 821 Transmission & distribution line & circuit assembly, installation, & repair
- 822 Wire communication, detection, & signaling equipment assembly, installation, & repair
- 823 Electronic communication, detection, & signaling equipment assembly, installation, & repair
- 824 Lighting equipment & building wiring assembly, installation, & repair, n.e.c.
- 825 Transportation & materials handling equipment assembly, installation, & repair, n.e.c.
- 826 Industrial apparatus assembly, installation, and repair, n.e.c.
- 827 Large household appliances & similar commercial & industrial equipment assembly, installation, & repair
- 828 Electrical & electronic product fabrication, installation, & repair, n.e.c.
- 829 Assembly, installation, & repair of electrical products, n.e.c.

84 PAINTING, PLASTERING, WATERPROOFING, CEMENTING, AND RELATED

- 840 Construction & maintenance painting & related work
- 841 Paperhanging
- 842 Plastering & related work
- 843 Waterproofing & related work
- 844 Cement & concrete finishing & related work
- 845 Transportation equipment painting & related work
- 849 Painting, plastering, waterproofing, cementing, & related work, n.e.c.

85 EXCAVATING, GRADING, PAVING, & RELATED

- 850 Excavating, grading, & related work
- 851 Drainage & related work
- 852 Concrete paving
- 853 Asphalt paving
- 859 Excavating, grading, paving, & related work, n.e.c.

86 CONSTRUCTION OCCUPATIONS, N.E.C.

- 860 Carpentry and related work
- 861 Brick and stone masonry and tile setting
- 862 Plumbing, gas fitting, steam fitting, and related work
- 863 Asbestos and insulation work
- 864 Floor laying and finishing work
- 865 Glass setting and related work
- 866 Roofing and related work
- 869 Miscellaneous construction work, n.e.c.

89 STRUCTURAL WORK OCCUPATIONS, N.E.C.

- 891 Structural maintenance, n.e.c.
- 892 Hoisting and conveying, n.e.c.
- 899 Miscellaneous structural work, n.e.c.

MISCELLANEOUS WORK

90 MOTOR FREIGHT

- 900 Concrete-mixing-truck driving
- 902 Dump-truck driving
- 903 Truck driving, inflammables
- 904 Trailer-truck driving
- 905 Heavy truck driving
- 906 Light truck driving
- 909 Motor freight transportation, n.e.c.

91 TRANSPORTATION OCCUPATIONS, N.E.C.

- 910 Railroad transportation
- 911 Water transportation
- 912 Air transportation
- 913 Passenger transportation, n.e.c.
- 914 Pumping and pipeline transportation
- 915 Parking lot and related service work
- 919 Miscellaneous transportation work, n.e.c.

92 PACKAGING AND MATERIALS HANDLING

- 920 Packaging
- 921 Hoisting and conveying
- 922 Materials moving and storing, n.e.c.
- 929 Packaging and materials handling, n.e.c.

93 OCCUPATIONS IN EXTRACTION OF MINERALS

- 930 Boring, drilling, cutting, and related work
- 931 Blasting
- 932 Loading and conveying
- 933 Crushing
- 934 Screening and related work
- 939 Extraction of minerals, n.e.c.

94 OCCUPATIONS IN LOGGING

- 940 Timber cutting and related work
- 941 Log inspecting, grading, scaling, and related work
- 942 Log sorting, gathering, storing, and related work
- 949 Logging, n.e.c.

95 PRODUCTION AND DISTRIBUTION OF UTILITIES

- 950 Stationary engineering
- 951 Firing and related work
- 952 Generation, transmission, and distribution
of electric light and power
- 953 Production and distribution of gas
- 954 Filtration, purification, and distribution of water
- 955 Refuse and sewage disposal
- 956 Distribution of steam
- 957 Transmission of communications, n.e.c.
- 959 Production and distribution of utilities, n.e.c.

96 AMUSEMENT, RECREATION, AND MOTION PICTURE
OCCUPATIONS, N.E.C.

- 960 Motion picture projecting
- 961 Modeling and related work, n.e.c.
- 962 Motion picture production, n.e.c.
- 963 Radio and television production, n.e.c.
- 964 Theatrical and related entertainment production, n.e.c.
- 969 Miscellaneous amusement, recreation, and motion
picture work, n.e.c.

97 GRAPHIC ART WORK

- 970 Art work, brush, spray, or pen
- 971 Photoengraving
- 972 Lithography and related work
- 973 Hand composition, typesetting, and related work
- 974 Electrotyping and related work
- 975 Stereotyping and related work
- 976 Darkroom work, n.e.c.
- 977 Bookbinding and related work
- 979 Graphic art work, n.e.c.

999 INFORMATION NOT AVAILABLE

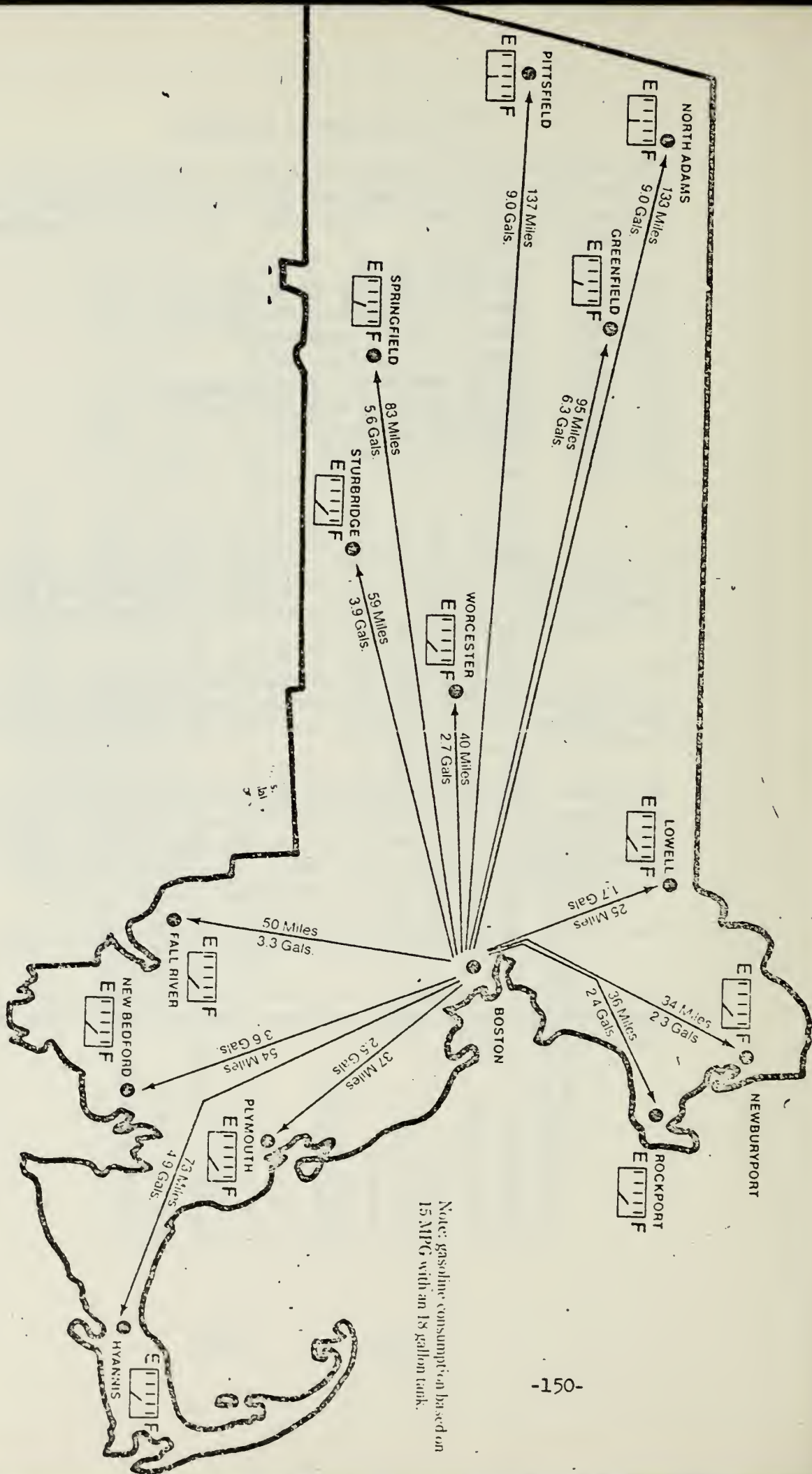
Table E.S. Job Bank Job Openings By Job Bank Area
By Occupational Category By Average Pay
March 1979

Occupational Category	Massachusetts	Boston-Metro Average Pay	Lawrence	Springfield	Taunton	Worcester
Total All Openings	\$ 8,245.00/yr	\$ 8,828.00/yr	\$8,152.00/yr	\$8,169.00/yr	\$7,194.00/yr	\$7,994.00/yr
Professional, Technical, And Managerial	10,294.00/yr	12,032.00/yr	9,394.00/yr	9,863.00/yr	9,614.00/yr	9,704.00/yr
Clerical And Sales	7,537.00/yr	7,767.00/yr	7,594.00/yr	7,386.00/yr	7,331.00/yr	7,402.00/yr
Service	3.62/hr	3.66/hr	3.57/hr	3.65/hr	3.68/hr	3.44/hr
Farming, Fishery, Forestry, And Related	3.77/hr	4.30/hr	3.91/hr	3.44/hr	3.82/hr	3.78/hr
Processing	3.79/hr	3.86/hr	3.74/hr	4.27/hr	3.50/hr	3.58/hr
Machine Trades	4.09/hr	4.45/hr	3.90/hr	4.07/hr	3.92/hr	4.05/hr
Bench Work	3.42/hr	3.73/hr	3.36/hr	3.27/hr	3.22/hr	3.35/hr
Structural Work	4.32/hr	4.61/hr	4.36/hr	4.17/hr	4.05/hr	4.46/hr
Miscellaneous	3.60/hr	3.80/hr	3.53/hr	3.57/hr	3.46/hr	3.54/hr

Source: Employment And Training Administration
U.S. Department Of Labor

CRITICAL ECONOMIC VARIABLES

1. The OPEC hike, the Iranian oil cutoff, and Saudia-Arabia's de-emphasis of the lighter crudes combined with oil price deregulation causing rampant price increases would effect the levels of employment in the following industries.
 - (SIC 15) General Building Contractors
 - (SIC 16) Heavy Construction Contractors
 - (SIC 17) Special Trade Contractors
 - (SIC 24) Lumber and Wood Products
 - (SIC 3079) Miscellaneous Plastics Products
 - (SIC 371) Motor Vehicles and Equipment
 - (SIC 3861) Photographic Supplies
 - (SIC 45) Air Transportation
 - (SIC 554) Gasoline Service Stations
2. Political unrest and economic instability in Zaire, may increase the cost of copper, cobalt, and industrial diamonds, raw materials essential to (SIC 34), Fabricated Metal Products except Machinery and Transportation Equipment.
3. Barring worldwide political disruptions, employment will continue to increase in (SIC 34) Fabricated Metal Products except Machinery and Transportation Equipment and (SIC 38) Measuring, Analyzing, and Controlling Instruments.
4. Department of Defense and Department of Energy prime contract spending will remain at the same level or increase slightly thus maintaining employment levels in the electron tube industry (SIC 367), the communications industry (SIC 3662), engineering services industry (SIC 8911), and aircraft engines industry (SIC 3724).
5. Spending by state and local governments will gradually level.
6. The dislocation caused by increased transportation costs of raw materials, finished goods, and the labor pool will have an impact on the general economy.



Note: gasoline consumption based on 15 MPG with an 18 gallon tank.

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ANNUAL PLANNING INFORMATION REPORT FISCAL YEAR 1981 LOWELL LMA



LABOR AREA RESEARCH PUBLICATION

Massachusetts Division of Employment Security

job market research



ANNUAL PLANNING INFORMATION REPORT

FOR

FISCAL YEAR 1981

LOWELL, MASSACHUSETTS

LABOR MARKET AREA

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P R E F A C E

The Annual Planning Information (API) Report provides tabular data and an analysis of recent and anticipated employment and unemployment developments. It includes manpower information on the insured unemployed, as well as unfilled job openings and applicant characteristics in order to provide a comparison of labor demand and supply.

Hopefully, the API Report will meet many of the information needs of manpower and community planners, educators, anti-poverty organizations, local and state officials, businesses, labor, and community leaders, and others who need accurate and timely area manpower and job market information for decision-making purposes.



LOWELL LABOR AREA



THE COMMONWEALTH OF MASSACHUSETTS
DIVISION OF EMPLOYMENT SECURITY

THE HISTORY OF THE



OF THE

I. Description of Area

The Lowell Labor Market Area is located within Middlesex County, largely in the Merrimack Valley at the confluence of the Merrimack and Concord Rivers. The LMA consists of the City of Lowell, and the towns of Billerica, Chelmsford, Dracut, Dunstable, Tewksbury, Tyngsborough, and Westford, encompassing approximately 171.4 square miles. The Lowell CETA area covers the same municipalities as the Lowell LMA. Limited access Routes 3 and 495 provide commercial road transportation. Route 495 connects with Route 93, a limited access interstate highway. The driving time to Logan International Airport in Boston is 45 minutes.

A labor area is a geographical area consisting of a central city or cities and the surrounding territory in which there is a concentration of economic activity and in which workers can generally change jobs without changing their residence. Basic emphasis is on commuting patterns and the relationship between the worker's place of residence and place of work.

Lowell LMA and Commuting Data

The unpublished 1970 Census Worker Commuting Data represent summary statistics on place of work and place of residence as enumerated in the 1970 Decennial Census of Population. The data are based on a 15 percent sample of the resident population. Of the total count of persons who reported place of work, 58.1 percent worked in the Lowell LMA, 38.5 percent in the City of Lowell and 19.6 percent in the remainder of the labor area. Almost 32 percent of the labor force commuted to the Boston SMSA, with 4.9 percent of the commuters working in the City of Boston. Approximately 5 percent commuted to the Lawrence-Haverhill SMSA.

Recent Place-of-Residence Adjustment Rates by the Bureau of Economic Analysis show a significant change in the relative commuting flow for the Lowell LMA between 1970 and 1976. In 1970, the number of employed who reside (place-of-residence) in the Lowell LMA exceeded the number of jobs (place-of-work) in the area (Ratio 1.0124). Between 1970 and 1976 both the number of jobs and the number of employed residents increased. The Bureau of Economic Analysis estimates that the number of jobs in the Lowell LMA in 1976 exceeded the number of employed individuals in the LMA. (Ratio .9726). This suggests that more individuals are now commuting into the area and more Lowell LMA residents are staying in the area.

Population and Labor Force Characteristics and Trends

The further one gets from the decennial census the more difficult it becomes to estimate an area's population with accuracy. Trends in the rate of natural increase, and of in/out migration change. The trends that were applicable in 1970 or 1975 are unlikely to be a fully accurate reflection of the years 1976 to 1981. While this should be the last annual planning report utilizing data that has been "built-up" from the 1970 census, we can still draw some useful conclusions. The population of the Lowell LMA is higher than it was in either 1970 or 1975; and it is still growing, although more slowly than in the late 1960's. Bureau of the Census population estimates for 1977 indicate a population of 222,835 for the Lowell LMA. The estimates show all cities and towns in the area registering gains between 1970 and 1977, with the exception of the City of Lowell, which declined by 6.1 percent. The Census estimates made prior to the past few years of Lowell's ongoing resurgence must certainly understate the City's population as well as the direction of the trend.

The Lawrence/Berkeley projections listed in Table 2 indicate that the LMA's population should reach 225,892 in 1981. This represents a 5.5 percent increase over Census Bureau's 1970 population of 214,152 and is in line with the Bureau's 1977 estimate as well.

Table 1 Population Estimates
 Lowell Labor Market Area
 1970 and 1979

	July 1, 1977	April 1, 1970	Change	Percent
TOTAL	222,835	214,152	8,683	4.1
Billerica	37,051	31,648	5,403	17.1
Chelmsford	32,007	31,432	575	1.8
Dracut	20,619	18,214	2,405	13.2
Dunstable	1,650	1,292	358	27.7
Lowell	88,449	94,239	-5,790	- 6.1
Tewksbury	24,226	22,755	1,471	6.5
Tyngsborough	5,190	4,204	986	23.5
Westford	13,643	10,368	3,275	31.6

Source: U. S. Department of Commerce
Bureau of the Census
Series P-25 No. 834 Issued November 1979

Table 2 POPULATION AND LABOR FORCE COMPOSITION PROJECTIONS
FISCAL YEAR 1981
Lawrence/Berkeley Projections
Lowell LMA

	Population	Labor Force	Employment	Unemployment	Unemployment Rate	Labor Force Participation Rate
TOTAL	225,892	117,258	108,110	9,148	7.8	69.1
White Male	107,294	62,716	58,015	4,701	7.5	79.3
0-15	28,247	--	--	--	--	--
16-17	5,258	3,955	--	--	--	75.2
18-19	5,258	3,649	--	--	--	69.4
20-24	11,458	9,603	--	--	--	84.1
25-34	14,220	13,296	--	--	--	93.5
35-44	12,420	11,554	--	--	--	93.2
45-64	22,633	18,011	--	--	--	79.6
65 +	7,799	2,618	--	--	--	33.6
White Female	116,006	53,552	49,146	4,376	8.2	60.2
0-15	27,012	--	--	--	--	--
16-17	4,993	4,682	--	--	--	93.8
18-19	4,993	4,359	--	--	--	87.3
20-24	11,960	9,305	--	--	--	78.1
25-34	16,252	10,050	--	--	--	61.8
35-44	13,913	9,834	--	--	--	70.7
45-64	23,966	14,278	--	--	--	59.6
65 +	12,916	1,014	--	--	--	7.9
Nonwhite Male	1,212	524	468	56	10.7	65.6
0-15	415	--	--	--	--	--
16-17	67	24	--	--	--	35.8
18-19	67	46	--	--	--	68.6
20-24	103	49	--	--	--	47.6
25-34	279	205	--	--	--	73.5
35-44	81	75	--	--	--	92.5
45-64	138	113	--	--	--	81.8
65 +	63	10	--	--	--	15.9
Nonwhite Female	1,380	497	481	16	3.2	55.3
0-15	482	--	--	--	--	--
16-17	51	22	--	--	--	43.1
18-19	51	15	--	--	--	29.4
20-24	128	90	--	--	--	70.3
25-34	272	200	--	--	--	73.5
35-44	142	38	--	--	--	26.7
45-64	159	89	--	--	--	60.0
65 +	95	43	--	--	--	45.2

Table 3 Lowell Population Projections
For July 1, 1981.

Ages	White		White Total	Black		Black Total	All		All		Combined Total
	Males	Females		Males	Females		Males	Other Females	Other Total	All Total	
TOTAL	107,294	116,006	223,300	843	947	1,790	369	433	802	225,892	
0-4	7,589	7,216	14,805	109	106	215	35	34	69	15,089	
5-9	6,543	6,227	12,770	89	88	177	41	41	82	13,029	
10-14	11,494	11,080	22,574	65	127	192	29	51	80	22,846	
15-19	13,144	12,482	25,626	150	120	270	21	11	32	25,928	
20-24	11,457	11,959	23,416	84	90	174	28	42	70	23,660	
25-29	8,705	8,643	17,348	124	103	227	86	23	109	17,684	
30-34	5,514	7,608	13,122	56	88	144	12	58	70	13,336	
35-39	6,408	7,420	13,828	6	61	67	14	29	43	13,938	
40-44	6,010	6,492	12,502	50	33	83	12	20	32	12,617	
45-49	6,507	6,403	12,910	16	39	55	24	36	60	13,025	
50-54	6,008	6,351	12,359	24	19	43	9	22	31	12,433	
55-59	5,621	5,852	11,472	28	8	36	11	0	11	11,520	
60-64	4,495	5,358	9,853	18	22	40	8	13	21	9,914	
65-69	3,163	3,845	7,008	11	11	22	13	15	28	7,058	
70-74	2,030	3,279	5,309	4	21	25	6	9	15	5,349	
75+	2,606	5,791	8,397	9	11	20	20	29	49	8,466	

II. ASSUMPTIONS AND PROJECTIONS FOR THE ECONOMY
COMMONWEALTH OF MASSACHUSETTS
FEDERAL FISCAL YEAR 1981 (FFY '81)

The Job Market Research staff of the Division of Employment Security has the responsibility for analyzing and reporting changes in the State's employment and unemployment. Nevertheless, even with the most current data and with computer models of the national and state economies, projecting economic conditions is extremely difficult in these times of rapid changes. (At the national level, for example, projections of the FFY '81 average unemployment rate have been increased by almost two percentage points in a recent two-month period.) The economic assumptions for Massachusetts were based on data available at the beginning of June 1980.

1. Employment

Employment by industry groups has been projected for the coming fiscal year. Detailed projections are analyzed in a later section of this report. Total employment in Massachusetts is expected to range around 2,705,000 for FFY '81. This is an expected decline of 5,000 from FFY '80. Wage and salary employment projections by industry group for FFY '81 range around the levels shown below:

Industry	Employment Projected FFY 1981 in 000's
TOTAL NONAGRICULTURAL EMPLOYMENT.....	2,655.4
Manufacturing - Total	669.4
Durable goods	406.1
Nondurable goods.....	263.3
Construction	78.0
Transportation, Communications & Public Utilities..	119.1
Wholesale and Retail Trade.....	589.2
Finance, Insurance and Real Estate.....	151.8
Services <u>1/</u>	626.1
Government - Total.....	421.6
Federal.....	60.8
State.....	98.1
Local.....	262.8

1/ Includes part of Agriculture and Mining

2. Unemployment Rate

We expect Massachusetts to average approximately one-half to one percentage point below the national average rate. As of this writing, the Data Resources Incorporated (DRI) national forecast is for an 8.5 percent average unemployment rate during FFY '81. This would give Massachusetts an average unemployment rate of about 8 percent over the same time period.

3. Labor Turnover

The labor turnover in Massachusetts is expected to follow the 1971 trend during which new hires and quits fell 30 percent to levels below 2.0 per 100 employees. Total accessions are expected to be fewer than total separations by a ratio of 2 to 3.

4. Wages and Inflation

Total wages are expected to increase by approximately 11 percent. Purchasing power is not expected to rise by as much as wages because inflation will continue to reduce the value of the dollar. During FFY '80 inflation has risen to 13.5 percent, but is expected to be less in FFY '81 -- perhaps down to 10 percent. It is doubtful that consumers will continue purchasing at the FFY '80 rate, which is already considerably lower than FFY '79 in real terms.

5. Credit

The cost of financing current purchases is expected to remain high, but well below the FFY '80 peak which saw a prime rate of 20 percent. The mortgage rates are projected to be around 11.0-11.5 percent in FFY '81, and consumer credit in a range of 11-12 percent. All interest rates are highly sensitive to changes in U. S. Treasury or Federal Reserve Bank policies.

6. Defense Contracts

Defense contract spending, vital to the health of the Massachusetts economy, is expected to remain stable at its current levels. Massachusetts is among the top 10 states in the receipt of defense contracts with a value greater than \$10,000. The nearly \$3 billion awarded to the Commonwealth's firms represents over 5 percent of the total awards.

7. Energy

Because the Massachusetts industrial mix is relatively nonenergy intensive, we do not expect the upward trend in energy prices to affect Massachusetts as much as the rest of the country. During 1979, industries coped with rising energy costs through conservation, conversion, and cogeneration.

III. Outlook and Employment Developments by Industry

Industrial growth and expansion were the watchwords for 1979, a year that proved to be exceptionally favorable in the Lowell Labor Market Area. The area's robust economic health continued into the first quarter of 1980 as nonagricultural wage and salary employment reached a new peak of 75,700 jobs in March according to the Current Employment Statistics (CES sample). Employment was 4.7 percent higher than a year before and 31.7 percent higher than March 1975, the LMA's low point.

Durable goods manufacturing industries have been responsible for most of the growth, adding 8,100 workers since 1975. This strong performance was led by the area's "high technology" industries, whose extraordinarily rapid growth will be detailed and analyzed separately as part of the following narrative.

By contrast, nondurable goods, the other component of manufacturing has shown very little real growth over the past five years. The Food Processing industry even with the addition of the Prince Macaroni plant stands at essentially its 1975 level. Apparel and textiles, two industries which have declined greatly in the area since the 1920's have shown little or no growth in the past five years. Apparel's employment level of 1,000 in March 1980 was the same as in 1975. Textiles, where Joan Fabrics has been a bright spot, now stands at 2,800 jobs or 100 more jobs than its 1975 average. Printing at 2,400 jobs in March was 100 less than its 1975 average, while leather had increased to 1,900 jobs from 1,300 total in 1975. "Other" nondurables accounted for the manufacturing division's biggest gain by adding 700 jobs over the past five years.

Contract construction's total of 2,600 jobs is 900 more than in March 1975, having reached a high of 3,100 in July of 1979. Transportation, Communications, and Public Utilities have climbed slowly but steadily from 2,400 jobs in 1975 to a new high of 3,400 in March 1980. Finance, Insurance, and Real Estate have added 100 jobs.

The Service Industries aided by the establishment of the urban parks have seen major increases. Employment is now at 11,300, down slightly from a seasonal peak of 11,600 in June and July of 1979, but up significantly from March 1975's total of 9,500.

Wholesale and retail trade, while highly affected by seasonal factors, has also participated fully in the area's recovery. Although down slightly from a December 1979 seasonal peak of 15,800 jobs, March 1980 employment of 15,200 is 2,300 above March 1975.

After holding steady at 13,300 jobs in both 1978 and 1979, employment in state and local government appears to be contracting. The March 1980 total of 12,800 represents a drop of 200 from the previous month. Five years ago government totals were 10,100.

As mentioned earlier, the big story in the Lowell LMA has been its "high technology" 1/ industry. Within the durable goods manufacturing sector "high technology industry" is an unofficial regrouping of selected industrial classifications in the computer, office machine, space vehicle, and related areas. Its recent growth rate in the LMA has been among the fastest in the state. A recent Department of Man-power Development survey based on quarterly employment and wages (ES-202) data - the universe from which the CES sample is drawn -- shows Lowell experiencing an extraordinarily rapid 36.8 percent employment growth among high technology industries between 1976 and 1978 (ES 202 data usually lags behind CES data by nearly one year). This increase translated into over 2,600 new jobs. Total high technology employment of 9,700 was 17.0 percent of the labor areas share of total employment in 1978. This ranked Lowell well above the industry's state-wide average of 11.3 percent of total 1978 employment.

The strong performance of the high technology industry was paced by its two largest industrial groups, Office and Computing Machines, and Space Vehicles and Guided Missiles. Over 1,700 additional jobs were created by manufactures of computing machines, while some 460 new jobs were generated in the space vehicle industry. In addition, the communication equipment industry more than doubled in size with its 200 job increase.

Short-term economic developments in the LMA are dependent on national and international economic influences. The National Bureau of Economic Research has dated a recession as having started in February 1980. Although it is not yet in evidence, it is reasonable to expect that the Lowell area's unemployment in 1981 will be higher than it is now. The LMA's newly found strength should give it a significant degree of resilience in the face of economic adversity, yet it cannot be expected to entirely escape the effects of reduced economic activity in the country as a whole. This diminished national and international demand for locally produced goods and services should lead to some layoffs. Unemployment should rise fastest in nondurables manufacturing, which traditionally bears the brunt of local economic downturns. (Cyclically sensitive construction and wholesale and retail trade should have larger layoffs than the rest of the nonmanufacturing industries.) Employment may drop off slightly in the durable goods

sector, but the sector with its high technology industries will serve to make the whole LMA's economy much less vulnerable to recessionary forces.

While the recession clouds a still fairly bright short term economic outlook, the longer run prospects for the LMA are indeed bright. The same public and private investment, the same public and private leadership, the same economic and technological factors, which have combined to give the Lowell LMA its lowest unemployment rate in history should continue to improve the area's position. The Lowell LMA should be one of the areas best suited to take advantage of the changing economic conditions over the next few years.

- 1/ The industries in the high technology group (and their SIC Codes) are as follows: Drugs (283); Ordnance and Accessories (348); Office, Computing and Accounting Machines (357); Electric Distribution Equipment (361); Electrical Industrial Apparatus (362); Household Appliances (363); Electric Lighting and Wiring Equipment (364); Radio and TV Receiving Equipment (365); Communication Equipment (366); Electronic Components and Accessories (367); Miscellaneous Electrical Equipment and Supplies (369); Guided Missiles and Space Vehicles (376); Miscellaneous Transportation Equipment (379); Engineering and Scientific Instruments (381); Measuring and Controlling Instruments (382); Optical Instruments and Lenses (383); Medical Instruments and Supplies (384); Ophthalmic Goods (385); Photographic Equipment and Supplies (386); Watches, Clocks, and Watchcases (387).

As this report was going to press, Wang Laboratories Inc. made the long awaited announcement of plans for the largest single industrial project in the city's history. The locally based high technology firm will build a fourteen story 500,000 square foot facility at the Lowell Industrial Park off Pawtucket Boulevard. The project will initially mean another 2,100 new jobs for the area. Completion of the facility will bring the number of Wang employees to about 11,000 with over 5,000 workers in the Lowell area. The August 1981 completion date will see Wang, which is currently the largest employer in the City of Lowell, become the largest employer in the city's history. Over and above these totals, the firm's future plans call for a second shift employing an undetermined number of additional workers.

Throughout the past year some 40 other Lowell area firms announced plans which call for the addition of more than 4,500 new jobs and spending of close to \$45 million for equipment and plant expansion in the Lowell area.

GCA Corporation of Bedford will be leasing a new 115,000 square foot facility in Chelmsford build by Alpha Enterprises and eventually will have 400 employees at the new plant. Raytheon Company, one of Lowell's major employers, has added 225 new jobs since last December. Optronics International Inc. of Chelmsford has added 20,000 square feet of space this year and 100 new jobs as a result of expansion.

U.S.C.I. , a division of C.R. Baird, has added 108 new employees to their Billerica plants.

Cambridge Tool and Manufacturing Company Inc., of North Billerica has grown from 60 to 255 employees since 1968. This year the firm added an additional 6,000 square feet of space.

Honeywell Information Systems, Inc. of Billerica has expanded, adding office and laboratory space.

Scopus Corp. of Lowell has added 70 new jobs to their payroll. They are leasing 28,000 square feet with an option to buy.

Ideal Tape Inc. has added 2,500 square feet of new space and increased its work force by nearly 30 jobs.

Joan Fabrics of Lowell has continued to expand increasing employment by 50 jobs.

Courier Corporation is adding 30,000 square feet to its Hall Street facility. The company received a \$6.3 million industrial revenue bond to help finance the project.

Paris Shoe Company Inc. of Lowell is building a new plant on four acres of land in the Hale Howard Industrial Park. The company expects to add 60 to 100 new jobs.

R. J. Rearden Company of Billerica added a 47,750 square foot warehouse on three acres as well as nine jobs.

Northeast Offset Inc., of Chelmsford, which has gone from 8 to 34 employees since 1971 has leased 4,000 square feet in their present building and is buying a \$15,000 square foot building in Chelmsford.

The Pellon Corporation of Lowell and Chelmsford has modernized and expanded its facilities, adding 23,000 square feet of space and machinery.

The Fairgrieve Company, Inc. of Lowell has added 1,300 square feet to their Warren Street factory.

G & S Systems, Inc. of Billerica has added 34 new employees to their payroll.

General Coatings of Westford has built a new plant, increasing their space from 1,500 to 4,000 square feet.

Grind-O, Inc. of Chelmsford, which has expanded almost every year for the past 10 years, added 5 more jobs this year.

Stickney & Poor Company of Chelmsford has added 10,000 square feet and 10 new employees. The company plans to increase its growth by going into the packaging of other products.

Valve Service International is a solar energy company which is building a 10,000 square foot solar-powered warehouse in Lowell and adding seven new employees.

Powercube Corporation, which employs about 100 people, has added 15 new employees.

Westford Anodizing Corporation of Westford has added 7,000 square feet of space at their Broadway Street plant and added eight new jobs.

Engineering Dynamics Corp. of Lowell is building a 30,400 square foot addition to its plant at a cost of \$600,000. The firm expects to add 50 new employees.

Digital Equipment Corporation has opened a computer maintenance and repair center in Lowell with 8,000 square feet of space. The company is adding 19 new employees.

Tan-Tron Inc. of Chelmsford has increased its space from 9,600 to 22,000 square feet.

Commonwealth Chemical Corporation of Lowell has added 10,000 square feet of warehouse space and 15 area employees.

Container Service, Inc. of Lowell has built a 14,500 square foot addition and added 10 new employees.

The Electric Candle Manufacturing Company of Chelmsford this year opened a division with 1,200 square feet and five employees.

On the following page is a reprint of an article published in the July 1980 issue of Dun's Review. It was featured in a cover story on "The Reindustrialization of America". It is included here not only as one example of the national publicity that the Lowell area has been receiving, but also because it is also useful and interesting to see how others view the Lowell Labor Market Area.

Lowell: From Riches to Rags and Back Again:

Lowell, Massachusetts was the birthplace of the American Industrial Revolution and once the principal manufacturing city in the U. S. But after the textile mills - its economic heart and soul - deserted Lowell for the cheaper labor and lower taxes of the South in the 1930's it languished as a near ghost town for almost four decades. At the depths of Lowell's depression, annual unemployment stood at 12.5 percent, the city's Merrimack River was declared one of the ten most polluted in the U. S., its canals were clogged almost to a standstill and vacant mills and rundown buildings littered the landscape. Worst of all, according to Robert R. Gilman, director of the city's Division of Planning and Development, was the community's own negative attitude. "The city came down on itself". Gilman says. "People were embarrassed to say they were from Lowell."

Today, that Lowell is a mere memory. The latest bumper sticker - "Lowell's Back" - tells the story. The downtown area is thriving, industrial development is booming, construction is going on everywhere. Unemployment in April was 5 percent well below the national average of 7 percent. As the Chamber of Commerce's campaign declares: "It's incredible."

The rebirth of Lowell is part of a larger resurgence, fueled by an influx of high-technology companies, that has come to much of the New England area. But while many cities have benefited, none seem to have put it all together as well as Lowell.

Since 1975, the year most people mark as the turning point, the list of companies locating and expanding in Lowell reads like a city manager's dream. Topping the list is \$320 million sales computer maker Wang Laboratories Inc., which in 1978 decided to make Lowell its headquarters city, resulting in 1,200 new jobs. Prince Macaroni Mfg. Co., a long-time Lowell resident, recently built what is reputed to be the world's second-largest pasta-making factory. Joan Fabrics Corp., a major producer of upholstery fabric, has undertaken four expansions, creating 700 new jobs. And Courier Corp., a major printer is engaged in a \$20 million expansion. Two dozen smaller companies have moved into Lowell in the past few years, and more than forty businesses and shops in the downtown area have been renovated.

On the municipal side, an \$18 million high school addition is in the works, the capacity of Lowell's water filtration plant is being doubled, and a \$125 million waste-water-treatment facility will open soon. The city has almost completed renting space in its two new industrial parks, and area residents are riding on a brand-new fleet of buses.

Aggressive Leadership

How has Lowell been able to stage such a resurgence in so short a time? The city itself has a lot going for it: a large supply of high-quality labor, an excellent location near Boston and a major airport, good municipal services and a stable tax rate. But while these and many other factors have come into play, the ability of aggressive city leaders to get and make the most of federal and state money has provided the major impetus. Nor has it hurt that several Lowell natives who have gone to prominence in government - notable Massachusetts' Paul E. Tsongas - have not forgotten their roots.

All told, an estimated \$250 million in federal and state funds have come Lowell's way since 1975 - "a lot of money", Robert Gilman says, for a city of only 95,000 population. There have been the usual grants for jobs, housing and municipal improvements, but city officials have also become adept at developing creative financing packages; that is, leveraging government funds with private money to reap greater awards.

For example, when Wang was looking for a new headquarters site, the city enticed the company with a \$5 million Urban Development Action Grant (UDAG) from the Department of Housing and Urban Development, and that proved to be the key to Wang's choosing Lowell. Wang was able to borrow the money at a very low 4 percent interest rate and, with \$13 million of its own built an \$18 million office tower. The result: a payroll of \$15 million and property-tax revenues of about \$330,000 a year.

Moreover, as Wang pays back the loan, the city has taken the unusual step of earmarking 80 percent of the money for a revolving fund to make further industrial development loans. "The UDAG is one of the hottest tools coming out of Washington, and using it the way it is, Lowell has learned to get more bang for the buck" says Carolyn J. Schwenker, consultant to the Council for Northeast Economic Action.

The creative approach also has activated the participation of Lowell's banking community. In 1975, ten area banks were organized into the Lowell Development and Financial Corp. (LDFC). The banks have pledged \$600,000 so far to establish a low-interest revolving loan fund for downtown improvement and storefront rehabilitation. The LDFC loans 30 percent of the cost of a development project at 40 percent of the prime rate in a secondary mortgage. To date, 28 businesses have borrowed \$643,000 from the fund. The LDFC program, in turn, has stimulated first mortgage loans and other funds, adding up to a total of \$3.5 million that has been generated locally for downtown development since 1977. In addition, the city provides retailers with grants of \$4,000 each and free architectural services to insure that the original style of the renovated buildings is maintained.

More Money

In the cultural area, Lowell has scored a major coup. Playing on the idea that the story of Lowell is an untold part of American History, in 1975 the city got the state to pledge \$10 million to build the Lowell Heritage State Park. Three years later, with the backing of Tsongas, Congress passed an act giving the city \$40 million for creation of the Lowell National Historical Park - making the whole city, in effect, the first national urban park in the United States. The Federal and state funds will be used for restoration and preservation of historic areas, cleaning the canals and developing cultural and recreational activities. Initial estimates are that the parks will attract one million visitors by 1988, generating revenues of \$30 million a year.

And the beat goes on. Construction is about to begin on Lowell's first major hotel, a \$10.2 million facility financed in part with another UDAG. Wang Labs is building a new manufacturing facility. And Rouse Co.'s American City Corp. subsidiary, which rejuvenates downtown areas, is currently studying Lowell as the possible site for a project similar to Boston's Quincy Market.

To get even more of its citizens involved in improving Lowell, city leaders have come up with an idea called the Lowell Plan. Dividing the city into three groups - industry, downtown and civic - they hope to get each group working on specific problems, such as poor housing and urban beautification.

Meanwhile, Lowell's stunning revitalization has already made it a focal point for architects and city planners around the country looking for advice and guidance. And its benefits to the people of Lowell are obvious. "The city is smiling," says Planning Director Robert Malavich. "We have made Lowell a good address." -- Marjorie Siegel Lyons

THE COMMONWEALTH OF MASSACHUSETTS
DIVISION OF EMPLOYMENT SECURITY

EMPLOYMENT AND WAGES IN ESTABLISHMENTS SUBJECT TO THE MASSACHUSETTS EMPLOYMENT SECURITY LAW
BY CITY AND TOWN

Table 4

TOTAL ANNUAL PAYROLL, AVERAGE ANNUAL WAGE, NUMBER OF ESTABLISHMENTS, AVERAGE ANNUAL EMPLOYMENT
BY MAJOR INDUSTRY DIVISION

Beginning 1967 -

Year	Total Annual Payroll in 000's \$	Average Annual Wage	Number Establishments	AVERAGE ANNUAL EMPLOYMENT*							Services
				Total Employment	Agriculture Forestry Fisheries	Mining	Contract Construction	Manufacturing	Trans. Comm. Utilities	Wholesale And Retail Trade	Finance Insurance Real Estate

BILLERICA 242

1967	\$13,430.4	\$5,332	241	2,519	5	0	242	889	92	878	11	403
1968	15,395.5	5,845	239	2,634	6	0	242	916	91	963	19	397
1969	22,319.0	6,830	244	3,268	4	0	247	1,200	136	1,191	24	465
1970	31,490.0	7,671	265	4,105	4	0	278	1,710	151	1,402	29	531
1971	38,821.5	8,213	299	4,727	5	0	325	2,038	170	1,473	46	670
1972*	46,230.0	8,973	313	5,152	10	0	451	2,139	172	1,613	58	709
1973	54,368.7	9,127	348	5,957	6	0	459	2,475	220	1,946	67	786
1974	58,853.2	9,557	361	6,158	5	0	316	2,841	305	2,096	59	537
1975	70,504.4	10,615	387	6,642	1	0	245	3,146	448	2,133	52	618
1976	80,406.9	11,363	395	7,076	1	0	283	3,236	492	2,352	58	654
1977	93,092.2	11,820	431	7,876	14	0	325	3,648	564	2,495	80	750
1978	115,299.0	12,618	477	9,138	31	0	338	4,176	677	2,927	125	865
1979												
1980												

CHILMARK 243

1967	\$14,778.4	\$ 4,687	279	3,153	27	81	349	795	86	1,290	56	470
1968	17,419.3	4,894	302	3,559	27	81	377	804	75	1,560	66	570
1969	20,516.0	5,369	313	3,821	24	72	410	857	111	1,581	67	701
1970	21,547.7	5,662	336	3,806	26	61	421	711	128	1,592	73	795
1971	23,298.4	6,078	344	3,833	31	65	421	597	159	1,643	76	840
1972*	28,043.2	6,520	375	4,301	34	58	566	661	164	1,878	102	839
1973	33,323.9	6,963	408	4,786	36	63	629	839	162	1,963	247	847
1974	35,012.6	7,212	409	4,855	41	61	486	1,018	175	1,979	255	841
1975	40,052.7	8,019	436	4,995	26	59	371	989	199	2,238	250	862
1976	41,176.0	7,928	458	5,194	27	60	390	1,036	245	2,244	265	927
1977	45,849.6	8,267	483	5,546	39	59	419	1,133	269	2,357	275	995
1978	55,131.3	9,062	522	6,084	29	57	472	1,310	296	2,440	301	1,180
1979												
1980												

*Since January 1, 1972 most non-profit organizations formed and operated for religious, charitable, scientific, literary, educational, or certain other purposes are covered by The Massachusetts Employment Security Law.

Table 4

EMPLOYMENT AND WAGES IN ESTABLISHMENTS SUBJECT TO THE MASSACHUSETTS EMPLOYMENT SECURITY LAW

BY CITY AND TOWN

DIVISION OF EMPLOYMENT SECURITY

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Beginning 1967 -

Year	Total Annual payroll in 000's \$	Average Annual Wage	Number Establishments	AVERAGE ANNUAL EMPLOYMENT							
				Total Employment	Agriculture Forestry Fisheries	Mining	Contract Construction	Manufacturing	Trans. Comm. Utilities	Wholesale And Retail Trade	Finance Insurance Real Estate

DRACUT 244

1967	\$ 6,952.5	\$4,752	177	1,463	9	0	349	480	73	423	11	119
1968	8,378.0	5,350	182	1,566	11	0	394	460	97	456	14	133
1969	8,890.3	5,478	189	1,623	12	0	416	413	116	511	12	143
1970	9,751.5	6,164	181	1,582	14	0	383	464	126	475	11	110
1971	8,669.4	6,689	180	1,296	17	0	411	113	133	510	11	101
1972*	8,743.3	6,619	183	1,321	16	0	414	114	137	525	10	105
1973	10,330.8	7,052	207	1,465	19	0	480	131	143	573	19	100
1974	11,001.4	7,111	232	1,547	15	0	446	163	130	643	22	128
1975	10,546.4	7,370	233	1,431	13	0	329	156	110	688	26	109
1976	11,541.4	7,804	242	1,479	10	0	342	188	115	673	27	124
1977	12,506.0	7,802	252	1,604	1	0	372	218	108	744	26	135
1978	14,475.4	8,334	271	1,737	3	0	392	272	118	782	32	137
1979												
1980												

DUNSTABLE 245

1967	\$ 124.8	\$4,027	12	31	0	0	15	0	8	1	0	7
1968	173.4	4,447	14	39	0	0	22	0	6	2	0	9
1969	221.5	5,680	14	39	0	0	21	0	8	3	0	7
1970	228.5	6,925	13	33	0	0	19	0	8	3	0	4
1971	390.9	8,145	14	48	0	0	32	0	9	1	0	6
1972*	648.1	7,904	15	82	0	0	55	0	7	3	0	17
1973	794.7	7,791	16	102	0	0	70	0	7	3	0	22
1974	615.8	8,322	15	74	0	0	50	0	6	0	0	17
1975	573.6	7,967	17	72	2	0	45	1	7	1	0	16
1976	398.7	6,431	17	62	2	0	38	2	6	6	0	8
1977	484.7	7,235	19	67	4	0	36	2	7	7	0	11
1978	657.4	8,217	23	80	6	0	48	2	9	4	0	11
1979												
1980												

*Since January 1, 1972 most non-profit organizations formed and operated for religious, charitable, scientific, literary, educational, or certain other purposes are covered by The Massachusetts Employment Security Law.

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				Total Employment	Agriculture Forestry Fisheries	Mining	Contract Construction	Manufacturing	Trans. Comm. Utilities	Wholesale And Retail Trade	Finance Insurance Real Estate	
LOWELL 241												
1967	\$158,129.5	\$ 5,447	1,612	29,033	22	0	1,008	15,250	984	6,522	1,246	4,002
1968	173,165.1	5,854	1,589	29,583	19	0	1,193	15,562	1,028	6,503	1,257	4,022
1969	193,105.9	6,252	1,561	30,888	24	0	1,129	16,605	997	6,836	1,294	4,003
1970	196,345.0	6,628	1,543	29,625	31	0	1,006	15,698	981	6,861	1,366	3,683
1971	200,895.4	6,952	1,533	28,896	13	0	1,251	14,567	971	7,019	1,379	3,606
1972*	228,325.4	7,234	1,525	31,563	25	0	1,340	14,802	992	6,906	1,413	6,086
1973	242,699.0	7,558	1,522	32,110	30	0	1,066	16,052	1,011	6,620	1,465	5,866
1974	244,549.4	8,014	1,482	30,516	34	0	889	14,671	1,065	6,426	1,457	5,975
1975	245,353.3	8,669	1,457	28,304	27	0	762	12,786	1,374	6,129	1,478	5,746
1976	267,712.5	9,234	1,433	28,991	30	0	775	12,820	1,313	6,183	1,451	6,419
1977	284,277.4	9,640	1,449	29,489	35	0	854	13,050	1,253	6,492	1,577	6,228
1978	325,616.7	10,377	1,516	31,378	45	0	906	13,841	1,289	6,935	1,500	6,862
1979												
1980												
TEWKSBURY 247												
1967	\$ 9,237.2	\$5,306	176	1,741	9	0	181	768	151	499	13	120
1968	12,250.5	5,437	205	2,253	11	0	185	1,106	109	697	13	133
1969	13,807.7	6,099	213	2,264	9	0	174	956	102	860	13	150
1970	16,935.5	6,670	215	2,539	11	0	166	1,179	97	919	13	154
1971	18,862.8	7,191	219	2,623	27	0	172	1,253	112	902	17	140
1972*	23,141.7	7,282	223	3,178	28	0	225	1,328	128	962	19	488
1973	32,441.4	7,998	236	4,056	25	0	255	1,766	134	1,157	43	677
1974	35,355.6	8,764	239	4,034	25	0	214	1,862	137	1,332	52	412
1975	36,779.0	9,402	234	3,912	3	0	124	1,667	218	1,417	46	438
1976	43,841.0	9,881	249	4,434	3	0	146	1,895	268	1,576	46	500
1977	52,760.2	10,704	248	4,929	2	0	167	2,341	243	1,612	51	513
1978	45,834.5	9,668	268	4,741	76	0	165	2,148	234	1,511	72	536
1979												
1980												

*Since January 1, 1972 most non-profit organizations formed and operated for religious, charitable, scientific, literary, educational, or certain other purposes are covered by the Massachusetts Employment Security Law.

DIVISION OF EMPLOYMENT SECURITY

Table 4 EMPLOYMENT AND WAGES IN ESTABLISHMENTS SUBJECT TO THE MASSACHUSETTS EMPLOYMENT SECURITY LAW
BY CITY AND TOWN

TOTAL ANNUAL PAYROLL, AVERAGE ANNUAL WAGE, NUMBER OF ESTABLISHMENTS, AVERAGE ANNUAL EMPLOYMENT
BY MAJOR INDUSTRY DIVISION

Beginning 1967 -

Year	Total Annual Payroll in 000's \$	Average Annual Wage	Number Establishments	AVERAGE ANNUAL EMPLOYMENT								Services
				Total Employment	Agriculture Forestry Fisheries	Mining	Contract Construction	Manufacturing	Trans. Comm. Utilities	Wholesale And Retail Trade	Finance Insurance Real Estate	

TYNGSBOROUGH 248

1967	\$ 915.7	\$3,999	47	229	0	0	21	4	9	122	9	65
1968	903.3	3,980	47	227	0	0	21	4	11	120	10	62
1969	993.9	3,794	44	262	0	0	20	13	10	134	11	72
1970	1,250.7	4,451	47	281	0	0	27	25	4	138	13	73
1971	1,245.9	4,755	48	262	0	0	23	28	6	117	15	74
1972*	1,544.4	5,097	51	303	0	0	53	31	5	122	14	79
1973	3,205.7	4,770	56	672	2	0	49	376	0	138	15	92
1974	3,763.4	6,070	57	620	1	0	39	327	0	128	14	111
1975	3,881.3	6,919	64	561	1	0	39	245	1	138	17	119
1976	5,925.0	7,462	61	794	0	0	58	452	2	155	18	109
1977	6,348.1	8,266	65	768	0	0	64	401	2	165	18	118
1978	5,361.1	9,149	77	586	1	0	43	223	4	165	16	135
1979												
1980												

WESTFORD 249

1967	\$ 8,452.0	\$6,003	87	1,408	5	28	146	970	21	138	1	98
1968	9,423.2	6,363	93	1,481	3	21	181	993	25	144	1	112
1969	10,423.0	6,716	94	1,552	2	25	191	1,013	32	168	1	120
1970	11,355.8	7,210	99	1,575	0	26	186	1,072	38	145	0	108
1971	11,843.6	7,486	105	1,582	1	22	220	1,059	10	163	0	107
1972*	12,938.1	7,913	101	1,635	1	20	238	1,038	40	182	0	116
1973	14,235.5	8,369	117	1,701	0	18	219	1,055	50	220	14	126
1974	14,989.5	8,435	130	1,777	2	18	185	1,111	50	251	14	146
1975	15,726.8	8,956	140	1,756	3	18	160	1,074	44	280	12	165
1976	16,780.9	9,790	145	1,714	6	8	159	1,044	35	278	12	172
1977	18,681.7	10,687	160	1,749	8	6	163	1,077	22	280	14	179
1978	21,522.9	11,054	168	1,947	8	6	200	1,156	38	296	18	223
1979												
1980												

*Since January 1, 1972 most non-profit organizations formed and operated for religious, charitable, scientific, literary, educational, or certain other purposes are covered by The Massachusetts Employment Security Law.

Table 5 Nonagricultural Wage and Salary Employment
Annual Averages - Lowell LMA
1970 - 1979
(in 000's)

Industry	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Nonagricultural-Total	56.2	56.1	58.9	61.8	61.4	59.4	62.4	65.3	68.6	74.1
Manufacturing-Total	20.9	19.7	20.7	22.8	22.0	19.9	20.8	21.9	23.1	26.0
Durable Goods-Total	8.8	8.3	8.5	10.0	10.3	9.4	9.3	10.7	12.0	14.7
Nondurable Goods-Total	12.1	11.4	12.2	12.8	11.7	10.5	11.5	11.2	11.1	11.3
Food	1.3	1.4	1.4	1.5	1.3	1.1	1.1	1.1	1.0	1.2
Textiles	3.1	2.9	3.2	3.5	2.9	2.6	3.0	3.0	3.0	3.0
Apparel	1.6	1.5	1.6	1.6	1.4	1.0	1.1	1.1	1.0	0.9
Printing	2.5	2.4	2.5	2.6	2.5	2.4	2.3	2.4	2.5	2.3
Leather	1.9	1.3	1.2	1.2	1.1	1.2	1.4	1.3	1.4	1.4
Other Nondurables	1.7	1.9	2.3	2.4	2.5	2.2	2.6	2.3	2.2	2.5
Nonmanufacturing-Total	35.3	36.4	38.2	39.0	39.4	39.5	41.6	43.4	45.5	48.1
Contract Construction	2.5	2.8	3.2	3.1	2.6	2.1	2.2	2.4	2.4	2.7
Transp., Comm., and Utilities	2.3	2.4	3.0	2.9	3.0	2.9	3.0	3.0	3.1	3.2
Wholesale & Retail Tr.	11.5	11.8	12.0	12.5	12.7	13.0	13.5	14.2	15.1	15.4
Fin., Ins. & Real Estate	1.5	1.6	1.6	1.9	1.9	1.9	1.9	2.1	2.1	2.1
Services, Misc., & Mining	9.3	9.3	9.5	9.5	9.5	9.5	9.9	10.3	10.4	11.4
Government	8.2	8.5	8.9	9.1	9.7	10.1	11.1	11.4	12.4	13.3

Source: 790 Reports (using 1972 SIC Codes).

Years 1978, 1977 and 1976 estimates adjusted to benchmark date 1977.

Year 1975 estimate adjusted to benchmark date 1976.

Years 1974, 1973, 1972, 1971 and 1970 estimates adjusted to benchmark date 1974.

Table 6 Private Sector Employment By Month
Lowell Labor Market Area
1979

SIC Code	Industries	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	All Subject Employment	57,948	58,064	48,502	59,340	60,003	61,199	59,744	60,212	61,137	61,115	61,478	61,709
01-09	Agriculture	168	167	164	222	235	237	207	201	197	183	167	160
10-14	Mining	44	44	45	63	69	70	75	74	70	71	68	62
15-17	Construction	2,340	2,260	2,321	2,637	2,933	3,144	3,116	3,122	3,062	3,045	2,897	2,719
19-39	Manufacturing	24,969	25,174	25,242	25,189	25,384	26,133	25,839	26,412	26,598	26,827	26,942	26,968
40-49	Transportation, Comm., and Utilities	2,582	2,595	2,617	2,563	2,652	2,735	2,451	2,439	2,680	2,541	2,588	2,579
50-51	Wholesale Trade	2,100	2,064	2,084	2,144	2,146	2,217	2,219	2,273	2,288	2,193	2,317	2,322
52-59	Retail Trade	13,156	13,132	13,274	13,553	13,573	13,464	12,834	12,814	13,245	13,103	13,303	13,636
60-67	Finance, Insurance and Real Estate	1,977	1,970	1,982	2,004	2,013	2,019	2,039	2,015	1,987	1,968	1,960	1,960
70-89	Services	10,612	10,658	10,773	10,965	10,998	11,180	10,964	10,862	10,010	11,184	11,236	11,303

Table 7

TOTAL EMPLOYMENT BY INDUSTRY ADJUSTED FOR CLASS OF WORKER
LOWELL LABOR MARKET AREA
MASSACHUSETTS

INDUSTRY TITLE	EMPLOYMENT			NET CHANGE	
	1970	1974	1985	1970-1974	1974-1985
TOTAL, ALL INDUSTRIES	63,485	67,029	73,391	3,544	6,362
AGRICULTURE, FORESTRY, & FISHERIES	806	906	785	100	-121
Agriculture	793	892	773	99	-119
Agriculture Production	605	634	455	29	-179
Agriculture Services, Except Horticultural	74	112	141	38	29
Horticultural Services	114	146	177	32	31
Forestry	*	*	*	*	*
Fisheries	*	*	*	*	*
MINING	87	82	77	-5	-5
Metal Mining	*	*	*	*	*
Coal Mining	*	*	*	*	*
Crude Petroleum & Natural Gas Extraction	0	0	0	0	0
Nonmetallic Mining, & Quarrying, except Fuel	85	80	75	-5	-5
CONSTRUCTION	3,848	4,194	4,823	346	629
General Building Contractors	881	795	997	-86	202
General Contractors, Except Building	885	1,005	1,115	120	110
Special Trade Contractors	2,082	2,394	2,711	312	317
MANUFACTURING	22,718	22,564	23,159	-154	595
Durable Goods	10,174	10,809	12,273	635	1,464
Ordinance	3,127	1,798	2,074	-1,329	276
Lumber & Wood Products, Except Furniture	38	39	36	1	-3
Logging	0	0	0	0	0
Sawmills, Planing Mills, & Mill Work	26	13	11	-13	-2
Miscellaneous Wood Products	12	26	25	14	-1
Furniture & Fixtures	379	562	551	183	-11
Stone, Clay & Glass Products	610	667	743	57	76
Glass & Glass Products	*	*	*	*	*
Cement, Concrete, Gypsum, & Plaster Products	25	29	48	4	19
Structural Clay Products	*	*	*	*	*
Pottery & Related Products	5	62	85	57	23
Miscellaneous Nonmetallic Mineral & Stone Products	577	574	608	-3	34
Primary Metal Production	556	575	532	19	-43
Blast Furnaces, Steel Works, Rolling & Fin. Mills	45	42	30	-3	-12
Other Primary Iron & Steel Industries	248	282	260	34	-22
Primary Aluminum Industries	53	44	36	-9	-8
Other Primary Nonferrous Industries	210	207	206	-3	-1
Fabricated Metal Products	474	592	737	118	145
Cutlery, Hand Tools, & Other Hardware	*	*	*	*	*
Fabricated Structural Metal Products	297	340	435	43	95
Screw Machine Products	*	*	*	*	*
Metal Stamping	0	49	48	49	-1
Misc. Fabricated Metal Products	165	193	243	28	50
Machinery, Except Electrical	2,869	4,053	4,943	1,184	890
Engines & Turbines	0	0	0	0	0
Farm Machinery & Equipment	*	*	*	*	*
Construction & Material Handling Machines	0	0	0	0	0
Metalworking Machinery	305	368	380	63	12
Office & Accounting Machines	256	374	393	118	19
Electronic Computing Equipment	2,028	2,752	3,576	724	824
Machinery, Except Electrical, N.E.C.	279	558	593	279	35

Note: Projections are based on 1974 employment levels

Table 7 (continued)

LOWELL LMA

INDUSTRY TITLE	EMPLOYMENT			NET CHANGE	
	1970	1974	1985	1970-1974	1974-1985
Electrical Machinery, Equipment & Supplies	1,412	1,683	1,757	271	74
Household Appliances	65	0	0	-65	0
Radio, TV, & Communication Equipment	578	367	347	-211	-20
Electrical Machinery, Equip. & Supplies, N.E.C.	769	1,316	1,410	547	94
Transportation Equipment	232	233	249	1	16
Motor Vehicles & Motor Vehicle Equipment	6	35	38	29	3
Aircraft & Parts	0	0	0	0	0
Ship & Boat Building & Repairing	226	198	211	-28	13
Railroad Locomotives & Equipment	0	0	0	0	0
Mobile Dwellings & Campers	0	0	0	0	0
Cycles & Misc. Transportation Equipment	0	0	0	0	0
Prof., Scientific Instr., Photo. Equip. & Watches	420	564	608	144	44
Scientific & Controlling Instruments	0	21	29	21	8
Optical & Health Services Supplies	400	525	555	125	30
Photographic Equipment & Supplies	20	18	24	-2	6
Watches, Clocks, & Clockwork Operated Devices	0	0	0	0	0
Miscellaneous Manufacturing Industries	57	43	43	-14	0
NONDURABLE GOODS	12,544	11,755	10,886	-789	-869
Food & Kindred Products	1,340	1,277	1,175	-63	-102
Meat Products	*	*	*	*	*
Dairy Products	137	107	67	-30	-40
Canning & Preserving	270	337	345	67	8
Grain Mill Products	*	*	*	*	*
Bakery Products	356	165	112	-191	-53
Confectionary & Related Products	16	14	7	-2	-7
Beverage Industries	91	80	60	-11	-20
Misc. Food Preparation & Kindred Products	462	564	575	102	11
Tobacco Manufacturing	0	0	0	0	0
Textile Mill Products	3,121	3,012	2,521	-109	-491
Knitting Mills	562	489	290	-73	-199
Dyeing & Finishing Textiles, Exc. Wool & Knit Goods	528	91	96	-437	5
Floor Coverings, Except Hard Surfaces	177	44	39	-133	-5
Yarn, Thread, & Fabric Mills	1,042	1,195	1,036	153	-159
Misc. Textile Mill Products	812	1,193	1,060	381	-133
Apparel & Other Fabricated Textile Products	1,569	1,391	1,234	-178	-157
Apparel & Accessories	1,549	1,360	1,210	-189	-150
Misc. Fabricated Textile Products	20	31	24	11	-7
Paper & Allied Products	1,013	995	970	-18	-25
Pulp, Paper, & Paperboard Mills	87	74	67	-13	-7
Paperboard Containers & Boxes	741	735	722	-6	-13
Misc. Paper & Pulp Products	185	196	181	1	-5
Printing, Publishing, & Allied Products	2,606	2,526	2,639	-80	113
Newspaper Publishing & Printing	346	437	483	91	46
Printing, Publishing, & Allied Prod., Exc. Newspapers	2,260	2,089	2,156	-171	67
Chemicals & Allied Products	433	608	658	175	50
Industrial Chemicals	83	139	168	56	29
Plastics, Synthetics & Resins, Except Fibers	157	138	139	-19	1
Synthetic Fibers	*	*	*	*	*
Drugs & Medicines	18	18	24	0	6
Soaps & Cosmetics	9	78	77	69	-1
Paints, Varnishes, & Related Products	0	0	0	0	0
Agricultural Chemicals	0	0	0	0	0
Miscellaneous Chemicals	161	226	240	65	14
Petroleum & Coal Products	*	*	*	*	*
Petroleum Refining	0	0	0	0	0
Misc. Petroleum & Coal Products	*	*	*	*	*
Rubber & Misc. Plastic Products	562	709	804	147	95
Rubber Products	18	19	10	1	-9
Misc. Plastic Products	544	690	794	146	104

Table 7 (continued)

LOWELL, MA

INDUSTRY TITLE	EMPLOYMENT			NET CHANGE	
	1970	1974	1985	1970-1974	1974-1985
Leather & Leather Products	1,894	1,231	875	-663	-356
Tanned, Curried, & Finished Leather	0	0	0	0	0
Footwear, Except Rubber	1,879	1,222	870	-657	-352
Leather Products, Except Footwear	*	*	*	*	*
TRANSPORTATION, COMMUNICATIONS & OTHER PUBLIC UTIL.	3,226	3,260	3,348	34	88
Transportation, Total	1,738	1,959	1,986	221	27
Railroads, & Railway Express Services	614	514	404	-100	-110
Local, Interurban Transit	512	699	716	187	17
Street Railways, Bus Line	324	475	504	151	29
Taxicab Service	188	224	212	36	-12
Trucking & Warehousing	568	695	810	127	115
Trucking Service	509	663	761	154	98
Warehousing & Storage	59	32	49	-27	17
Water Transportation	0	0	0	0	0
Air Transportation	9	11	14	2	3
Pipelines	0	0	0	0	0
Transportation Services	29	40	42	11	2
Communications, Utilities, & Sanitary Services	1,488	1,301	1,362	-187	61
Communications	821	590	566	-231	-24
Telephone (Wire & Radio)	784	526	491	-258	-35
Telegraph (Misc. Communications Service)	0	13	9	13	-4
Radio Broadcasting, TV	37	51	66	14	15
Utilities & Sanitary Services	667	711	796	44	85
Electric Light & Power	230	207	210	-23	3
Electric-gas Utilities	*	*	*	*	*
Gas & Steam Supply Systems	260	291	330	31	39
Water Supply	66	72	81	6	9
Sanitary Services	108	138	171	30	33
Other Utilities, N.E.C.	0	0	0	0	0
WHOLESALE & RETAIL TRADE	12,734	14,294	15,872	1,560	1,578
Wholesale Trade	1,429	1,909	2,155	480	246
Wholesale, Except Misc. Wholesale	809	905	1,030	96	125
Motor Vehicles & Equipment	154	182	212	28	30
Drugs, Chemicals, & Allied Products	26	47	56	21	9
Dry Goods & Apparel	53	46	52	-7	6
Food & Related Products	208	162	140	-46	-22
Farm Products - Raw Materials	*	*	*	*	*
Electrical Goods	100	110	133	10	23
Hardware, Plumbing	39	77	86	38	9
Machinery Equipment Supplies	223	281	351	58	70
Miscellaneous Wholesale Trade	620	1,004	1,125	384	121
Metals & Minerals, N.E.C.	63	98	109	35	11
Petroleum Products	61	104	116	43	12
Scrap & Waste Material	75	136	156	61	20
Alcoholic Beverages	45	77	87	32	10
Paper & Paper Products	80	121	135	41	14
Lumber & Construction Materials	63	100	113	37	13
Wholesale, N.E.C.	233	368	409	135	41
RETAIL TRADE	11,305	12,385	13,717	1,080	1,332
Building Materials	783	523	575	-260	52
Lumber, Building Material	400	388	421	-12	33
Hardware & Farm Equipment	383	135	154	-248	19
General Merchandise, Total	2,407	2,186	2,388	-221	202
Department, Mail Order	1,582	1,405	1,492	-177	87
Limited Price Stores	344	440	476	96	36
Vending Machine Operators	*	*	*	*	*
Direct Selling	264	271	334	7	63
Misc. Merchandise Stores	211	65	75	-146	10

Table 7 (continued)
LOWELL LMA

INDUSTRY TITLE	EMPLOYMENT			NET CHANGE	
	1970	1974	1985	1970-1974	1974-1985
Food & Dairy Stores	2,217	2,969	3,317	752	348
Grocery Stores	1,834	2,639	2,954	805	315
Dairy Product Stores	73	53	72	-20	19
Retail Bakeries	227	201	177	-26	-24
Food Stores, N.E.C.	83	76	114	-7	38
Auto Dealers, Gas Stations	1,395	1,435	1,725	40	290
Motor Vehicle Dealers	541	540	699	-1	159
Tire, Battery, Accessory	26	67	75	41	8
Gasoline Service Stations	807	795	911	-12	116
Miscellaneous Vehicle Dealers	21	33	40	12	7
Apparel & Accessories	465	593	600	128	7
Apparel, Accessories Stores	395	507	508	112	1
Shoe Stores	70	86	92	16	6
Furniture & Appliances	388	439	474	51	35
Home Furnishing Stores	256	281	280	25	-1
Appliance, TV, Radio Stores	132	158	194	26	36
Eating & Drinking Places	2,085	2,620	2,897	535	277
Misc. Retail Trade Stores	1,565	1,620	1,741	55	121
Drug Stores	437	403	397	-34	-6
Liquor Stores	248	247	265	-1	18
Farm, Garden Supply Stores	52	93	90	41	-3
Jewelry Stores	113	73	83	-40	10
Fuel & Ice Dealers	231	235	180	4	-55
Retail Florists	74	80	80	6	0
Misc. Retail Trade Stores	410	489	646	79	157
FINANCE, INSURANCE, & REAL ESTATE	1,670	2,050	2,414	380	364
Finance, Total	664	885	1,074	221	189
Banking	579	792	971	213	179
Credit Agencies	67	46	56	-21	10
Stock Brokers, Investment	18	47	47	29	0
Insurance	490	609	762	119	153
Real Estate, RE Law Insurance	516	556	578	40	22
SERVICES, TOTAL	15,648	16,696	19,671	1,048	2,975
Hotels & Lodging Places	152	117	132	-35	15
Hotels & Motels	128	85	96	-43	11
Lodging Places, Except Hotels	24	32	36	8	4
Other Personal Services	1,566	1,364	1,246	-202	-118
Laundry, Cleaning	811	485	362	-326	-123
Beauty Shops	404	412	460	8	48
Barber Shops	159	165	119	6	-46
Shoe Repair Shops	22	26	10	4	-16
Dressmaking Shops	37	55	51	18	-4
Other Personal Services	133	221	244	88	23
Miscellaneous Business Services	959	830	971	-129	141
Advertising	*	*	*	*	*
Business Management Services	84	47	54	-37	7
Commercial R. & D.	315	247	290	-68	43
Computer Programming	60	31	46	-29	15
Detective & Protective	52	29	36	-23	7
Employment, Temporary Help	72	36	46	-36	10
Services, Buildings	113	95	110	-18	15
Other Misc. Business Services	256	342	384	86	42
Automobile Repair Services	361	401	537	40	136
Auto Repair	247	280	394	33	114
Auto Services, Except Repair	114	121	143	7	22
Other Repair Services	300	319	395	19	76
Electrical Repair Shops	117	123	136	6	13
Other Repair Services	183	196	259	13	63

Table 7 (continued)

LOWELL LMA

INDUSTRY TITLE	EMPLOYMENT			NET CHANGE	
	1970	1974	1985	1970-1974	1974-1985
Motion Pictures, Theatres	61	41	50	-20	9
Miscellaneous Entertainment	253	321	342	68	21
Bowling Alleys, Billiards	65	73	61	-8	-12
Miscellaneous Entertainment	188	248	281	60	33
Medical, Other Health	5,858	6,238	7,904	380	1,666
Offices of Physicians	314	379	549	65	170
Offices of Dentists	266	358	492	92	134
Offices of Chiropractors	0	0	0	0	0
Hospitals	3,689	3,919	4,700	230	781
Convalescent Institutions	1,044	1,043	1,438	-1	395
Health Practitioners, N.E.C.	112	104	143	-8	39
Health Services, N.E.C.	427	435	582	8	147
Legal Services	348	372	400	24	28
Educational Services	3,965	4,777	5,686	812	909
Elementary, Secondary	3,050	3,768	4,398	718	630
College & Universities	722	803	1,055	81	252
Libraries	104	126	147	22	21
Educational Services, N.E.C.	89	80	86	-9	6
Museums, Art Galleries, Zoos	60	60	71	0	11
Nonprofit Organizations	884	925	1,025	41	100
Religious Organizations	299	309	346	10	37
Welfare Services	330	351	389	21	38
Residential Welfare	32	34	40	2	6
Nonprofit Membership	223	231	250	8	19
Private Households	441	349	270	-92	-79
Other Professional Related Services	440	582	642	142	60
Engineering & Architectural Services	161	137	135	-24	-2
Accounting, Auditing	157	313	346	156	33
Misc. Professional Services	122	132	161	10	29
GOVERNMENT, TOTAL 1/	2,748	2,983	3,242	235	259
Federal Public Admin.	600	634	622	34	-12
Postal Service	450	494	472	44	-22
Federal Public Admin.	150	140	150	-10	10
State Public Admin.	568	616	681	48	65
Local Public Admin.	1,580	1,733	1,939	153	206

1/ Government workers involved in activities unique to government are classified in the public administrative industry. Government workers in agencies engaged in activities also carried on by private industry such as shipbuilding, education, and medical services, are classified in the appropriate industry category.

* Employment figures suppressed for industries with less than 10 employees for all three time periods.

IV. Employment Outlook by Occupation

The projections of employment requirements for the Lowell LMA in Table 8 are designed to provide 1974 occupational profiles and projected occupational requirements for 1985. These projections are based on the demand for labor arising from both industrial growth as well as replacement needs.

It is important to note that these projections are not precise forecasts but indicators of relative magnitude and central tendency. In a dynamic labor market they are indicators of probable future direction and relationships. It should be recognized that these projections are based on 1974 employment levels.

By 1985 an estimated 37,455 new jobs will have been created in the Lowell LMA if economic trends continue. With 60.2 percent of the total demand arising due to growth, the anticipated increase of 221 electrical engineers is especially significant. By contrast, it is noted that within the medical field the demand for 470 registered nurses is due to separations rather than growth (although this may be an underestimate based on population trends). The teaching profession will also experience no gain in total demand due to growth, reflecting the changing demographic characteristics of the population.

The computer specialist category, where demand has been accentuated by the arrival of the microcomputer, is an area where both the present and future outlook are excellent.

Those with degrees in computer science are often hired as software or systems engineers, an area where demand far exceeds supply. Declining occupations include farm workers, security guards, barbers, and shoe making machine operatives. Within the clerical field, a requirement for 3,638 stenographers, typists, and secretaries is anticipated with miscellaneous clerical occupations also forecast to have a high demand.

Because the projections do not include occupational mobility, an awareness of recruitment and hiring practices is helpful to properly interpret occupational demand. Many mid-level and higher level jobs are filled either through internal promotion or recruitment from other firms rather than through ports of entry. The projections have a tendency to exaggerate the demand for higher level positions while understating the demand for lower and entry level positions.

Table 8
TOTAL NUMBER OF JOB OPENINGS, BY OCCUPATION
DURING 1974 - 1985 PERIOD
MASSACHUSETTS
LOWELL LABOR MARKET AREA

O C C U P A T I O N S	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974-1985		
			Total Demand	Due to Growth	Due to Separations
TOTAL, ALL OCCUPATIONS	67,101	73,407	37,455	6,306	31,149
Professional, Technical, Kindred	9,913	10,482	4,702	569	4,133
Engineers, Technical	1,576	1,792	502	216	286
Engineers, Aero-Astronautical	32	27	-5	-5	0
Engineers, Chemical	30	28	-2	-2	0
Engineers, Civil	108	112	37	4	33
Engineers, Electrical	628	761	221	133	88
Engineers, Industrial	276	315	94	39	55
Engineers, Mechanical	203	247	38	44	44
Engineers, Metallurgical	30	24	5	-6	11
Engineers, Mining	0	0	0	0	0
Engineers, Petroleum	0	0	0	0	0
Engineers, Sales	60	57	8	-3	11
Engineers, Other	209	221	56	12	44
Life & Physical Scientists	187	164	32	-23	55
Agricultural Scientists	14	8	5	-6	11
Atmospheric, Space Scientists	*	*	*	*	*
Biological Scientists	*	*	*	*	*
Chemists	129	141	56	12	44
Geologists	*	*	*	*	*
Marine Scientists	0	0	0	0	0
Physicists & Astronomers	30	19	-11	-11	0
Life, Physical Scientists, N.E.C.	0	0	0	0	0
Mathematical Specialists	0	0	0	0	0
Actuaries	0	0	0	0	0
Mathematicians	*	*	*	*	*
Statisticians	*	*	*	*	*
Engineers, Science Technicians	1,396	1,875	776	479	297
Agricultural & Biological Technicians, Except Health	17	24	18	7	11
Chemical Technicians	78	110	54	32	22
Drafters	331	399	123	68	55
Electrical & Electronic Technicians	534	792	346	258	88
Industrial Engineering Technicians	15	22	7	7	0
Mathematical Technicians	*	*	*	*	*
Mechanical Engineering Technicians	37	56	30	19	11
Surveyors	60	72	23	12	11
Engineering, Science Technicians, N.E.C.	323	398	174	75	99
Medical Workers, Except Technicians	1,274	1,102	686	-172	858
Chiropractors	0	0	0	0	0
Dentists	39	55	38	16	22
Dietitians	17	8	2	-9	11
Optometrists	8	13	5	5	0
Pharmacists	94	95	45	1	44
Physicians, M. D. Osteopaths	116	115	54	-1	55
Podiatrists	16	19	14	3	11
Registered Nurses	906	716	470	-190	660
Therapists	72	71	54	-1	55
Veterinarians	*	*	*	*	*
Other Medical & Health Workers	0	0	0	0	0

Note: Projections based on 1974 employment levels

Table 8 (continued)

LOWELL LMA

OCCUPATIONS	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974-1985		
			Total Demand	Due to Growth	Due to Separations
Health Technologists & Technicians	335	305	234	-30	264
Clinical Lab. Technologists & Technicians	145	101	55	-44	99
Dental Hygienists	18	46	61	28	33
Health Record Technologists & Technicians	21	19	20	-2	22
Radiological Technologists & Technicians	76	55	34	-21	55
Therapy Assistants	*	*	*	*	*
Other Health Technologists & Technicians	72	78	50	6	44
Technicians, Except Health	125	143	40	18	22
Airplane Pilots	17	21	4	4	0
Air Traffic Controllers	29	3	-15	-26	11
Embalmers	17	20	3	3	0
Flight Engineers	0	0	0	0	0
Radio Operators	11	14	3	3	0
Tool Programmers, Numerical	16	21	5	5	0
Other Technicians, Except Health	35	64	40	29	11
Computer Specialists	384	503	218	119	99
Computer Programmers	228	284	133	56	77
Computer Systems Analysts	135	190	77	55	22
Other Computer Specialists	21	29	8	8	0
Social Scientists	116	137	51	21	30
Economists	93	117	46	24	22
Political Scientists	0	0	0	0	0
Psychologists	14	8	-6	-6	0
Sociologists	0	0	0	0	0
Urban & Regional Planners	9	14	5	5	0
Other Social Scientists	0	0	0	0	0
Teachers	1,981	1,866	1,007	-115	1,122
Adult Education Teachers	25	30	16	5	11
College & University Teachers	150	45	-61	-105	44
Elementary School Teachers	845	902	662	57	605
Preschool & Kindergarten Teachers	119	128	86	9	77
Secondary School Teachers	708	617	206	-91	297
Teachers, N.E.C., Except Colleges & Universities	134	144	98	10	88
Writers, Artists, & Entertainers	570	679	340	109	231
Actors	*	*	*	*	*
Athletes & Kindred Workers	26	38	23	12	11
Authors	49	38	0	-11	11
Dancers	0	0	0	0	0
Designers	148	161	57	13	44
Editors & Reporters	98	132	89	34	55
Musicians & Composers	40	53	35	13	22
Painters & Sculptors	70	81	44	11	33
Photographers	37	41	15	4	11
Public Relations Specialist	33	35	13	2	11
Radio & TV Announcers	13	15	2	2	0
Writers, Artists, & Entertainers, N.E.C.	51	87	58	36	22
Other Professional & Technical	1,969	1,916	805	-53	858
Accountants	931	792	224	-139	363
Architects	24	24	11	0	11
Archivists & Curators	*	*	*	*	*
Clergy	117	137	75	20	55
Religious, Except Clergy	13	16	14	3	11
Farm Management Advisors	*	*	*	*	*

Table 8 (continued)

OCCUPATIONS	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974-1985		
			Total Demand	Due to Growth	Due to Separations
Foresters & Conservationists	*	*	*	*	*
Home Management Advisors	0	0	0	0	0
Judges	*	*	*	*	*
Lawyers	134	129	61	-5	66
Librarians	63	56	37	-7	44
Operations, Systems Research	118	182	86	64	22
Personnel Labor Relations	203	206	80	3	77
Research Workers, N.E.C.	66	51	18	-15	33
Recreation Workers	36	44	30	8	22
Social Workers	161	151	89	-10	99
Vocational, Education Counselors	81	104	67	23	44
Managers, Officials, & Proprietors	6,564	7,334	3,289	770	2,519
Buyers, Sales, & Loan Managers	1,129	1,474	763	345	418
Bank, Financial Managers	277	364	197	87	110
Credit Managers	43	52	31	9	22
Buyers, Shippers, Farm Products	*	*	*	*	*
Buyers, Wholesale, Retail	107	148	96	41	55
Purchasing Agents, Buyers, N.E.C.	180	237	123	57	66
Sales Manager, Retail Trade	291	376	184	85	99
Sales Manager, Except Retail Trade	225	291	121	66	55
Administrators, Public Inspectors	571	398	102	-173	275
Assessors, Controllers, Local Public Administration	*	*	*	*	*
Construction Inspectors, Public Administration	0	0	0	0	0
Health Administrators	90	75	40	-15	55
Inspectors, Except Construction, Public Admin.	89	33	-23	-56	33
Officials & Administrators, Public Admin.	199	53	-58	-146	88
Postmasters & Mail Superintendents	15	12	8	-3	11
School Administrators, College	51	69	40	18	22
School Administrators, Elementary & Secondary	119	152	88	33	55
Other Managers, Officials, & Proprietors	4,864	5,462	2,424	598	1,826
Funeral Directors	35	35	22	0	22
Managers, Superintendents, Building	73	93	64	20	44
Office Managers, N.E.C.	273	333	192	60	132
Officers, Pilots, Purser, Ship	*	*	*	*	*
Officials of Lodges, Unions	56	58	24	2	22
Railroad Conductors	23	28	16	5	11
Restaurant, Cafe & Bar Managers	347	343	117	-4	121
Other Managers & Administrators, N.E.C.	4,054	4,562	1,982	508	1,474
Sales Workers	3,267	3,809	2,170	542	1,628
Advertising Agents, Sales Workers	39	54	37	15	22
Auctioneers	0	0	0	0	0
Demonstrators	45	60	48	15	33
Hucksters & Peddlers	81	98	61	17	44
Insurance Agents, Brokers, etc.	279	357	188	78	110
Newspaper Carriers & Vendors	32	29	8	-3	11
Real Estate Agents, Brokers	113	122	75	9	66
Stock & Bond Sales Agents	75	73	31	-2	33
Sales & Sales Workers, N.E.C.	2,603	3,016	1,722	413	1,309

Table 8 (continued)

LOWELL LMA

OCCUPATIONS	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974-1985		
			Total Demand	Due to Growth	Due to Separations
Clerical Workers	11,672	13,251	9,851	1,579	8,272
Stenographers, Typists & Secretaries	3,237	3,795	3,638	558	3,080
Secretaries, Legal	123	166	175	43	132
Secretaries, Medical	88	98	98	10	88
Secretaries, Other	2,068	2,540	2,507	472	2,035
Stenographers	58	28	3	-30	33
Typists	900	963	855	63	792
Office Machine Operators	758	701	328	-57	385
Bookkeeping, Billing Operators	19	12	4	-7	11
Calculating Machine Operators	21	17	7	-4	11
Computer, Peripheral Equipment Operators	253	314	127	61	66
Duplicating Machine Operators	23	27	15	4	11
Keypunch Operators	345	226	101	-119	220
Tabulating Machine Operators	*	*	*	*	*
Other Office Machine Operators	95	106	66	11	55
Other Clerical Workers	7,677	8,755	5,885	1,078	4,807
Bank Tellers	249	302	240	53	187
Billing Clerks	92	127	112	35	77
Bookkeepers	1,088	1,121	814	33	781
Cashiers	1,178	1,301	981	123	858
Clerical Assistants, Social Welfare	0	0	0	0	0
Clerical Supervisors, N.E.C.	124	83	25	-41	66
Collectors, Bill & Account	33	37	15	4	11
Counter Clerks, Except Food	129	154	113	25	88
Dispatchers, Starters, Vehicle	54	71	39	17	22
Enumerators & Interviewers	*	*	*	*	*
Estimators, Investigators, N.E.C.	259	268	152	9	143
Expeditors, Production Controllers	288	379	201	91	110
File Clerks	204	178	139	-26	165
Insurance Adjusters & Examiners	99	129	74	30	44
Library Attendants & Assistants	68	68	55	0	55
Mail Carriers, Post Office	265	262	52	-3	55
Mail Handlers, Except Post Office	81	78	41	-3	44
Messengers & Office Helpers	29	24	17	-5	22
Meter Readers, Utilities	29	28	-1	-1	0
Payroll, Time Keeping Clerks	195	207	155	12	143
Postal Clerks	202	199	63	-3	66
Proofreaders	62	93	76	21	55
Real Estate Appraisers	22	22	11	0	11
Receptionist	207	209	200	2	198
Shipping, Receiving Clerks	584	661	253	77	176
Statistical Clerks	172	170	119	-2	121
Stock Clerks, Storekeepers	486	545	246	59	187
Teachers' Aides, Except Monitors	119	214	172	95	77
Telegraph Messengers	0	0	0	0	0
Telegraph Operators	*	*	*	*	*
Telephone Operators	256	203	229	53	176
Ticket Station & Express Agents	21	15	5	-6	11
Weighers	15	15	11	0	11
Miscellaneous Clerical Workers, N.E.C.	1,054	1,616	1,409	562	847

Table 8 (continued)

LOWELL LMA

OCCUPATIONS	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974-1985		
			Total Demand	Due to Growth	Due to Separations
Craft & Kindred Workers	9,977	11,438	4,057	1,461	2,596
Construction Crafts Workers	2,660	3,253	1,264	593	671
Carpenters & Apprentices	896	1,094	462	198	264
Brick & Stonemasons & Apprentices	125	152	49	27	22
Bulldozer Operators	51	73	33	22	11
Cement & Concrete Finishers	63	84	32	21	11
Electricians & Apprentices	553	692	260	139	121
Excavating, Grading & Machine Operators	155	215	82	60	22
Floor Layers, Except Tile Setters	*	*	*	*	*
Painters & Apprentices	331	333	101	2	99
Paperhangers	25	31	17	6	11
Plasterers & Apprentices	31	29	9	-2	11
Plumbers, Pipefitters & Apprentices	295	365	157	80	77
Roofers & Slaters	64	88	35	24	11
Structural Metal Craft Workers	54	71	28	17	11
Tilesetters	23	22	-1	-1	0
Blue-Collar Worker Supervisors, N.E.C.	1,409	1,604	624	195	429
Metalworking Craft Workers, Except Mechanics	941	986	265	45	220
Blacksmiths	*	*	*	*	*
Boilermakers	20	30	21	10	11
Heat Treaters, Annealers, & Temperers	25	17	3	-8	11
Forge & Hammer Operators	*	*	*	*	*
Job & Die Setters, Metal	12	15	3	3	0
Machinists & Apprentices	489	502	123	13	110
Millwrights	49	56	18	7	11
Molders & Apprentices, Metal	63	63	11	0	11
Pattern & Model Makers	39	21	-7	-18	11
Rollers & Finishers, Metal	*	*	*	*	*
Sheetmetal Workers & Apprentices	165	197	65	32	33
Tool & Die Makers & Apprentices	67	73	17	6	11
Mechanics, Repairers, & Installers	2,806	3,482	1,292	676	616
Air Cond., Heating, & Refrig. Mechanics & Repairers	309	395	152	86	66
Aircraft Mechanics	70	66	7	-4	11
Auto Accessories Installers	*	*	*	*	*
Auto Body Repairers	180	224	66	44	22
Auto Mechanics & Apprentices	866	1,158	479	292	187
Data Processing Machine Repairers	114	180	77	66	11
Farm Implement Mechanics	16	27	22	11	11
Heavy Equipment Mechanics Including Diesel	775	856	268	81	187
Household Appliance Mechanics	123	150	60	27	33
Loom Fixers	41	36	17	-5	22
Office Machine Repairers	67	118	62	51	11
Radio & Television Repairers	107	131	46	24	22
Railroad & Car Shop Repairers	23	20	8	-3	11
Other Mechanics & Apprentices	110	113	25	3	22
Printing Trade Craft Workers	709	720	220	11	209
Bookbinders	91	93	46	2	44
Composition & Typesetters	264	236	60	-28	88
Electrotypers & Stereotypers	*	*	*	*	*
Engravers, Except Photoengravers	13	14	1	1	0
Photoengravers & Lithographers	55	65	21	10	11
Pressmen, Plate Printers & Apprentices	279	309	85	30	55

Table 8 (continued)

LOWELL LMA

OCCUPATIONS	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974-1985		
			Total Demand	Due to Growth	Due to Separations
Transportation, Public Utility Crafts	370	369	32	-1	33
Electric Power Line Installers & Repairers	110	120	21	10	11
Locomotive Engineers	15	17	2	2	0
Locomotive Engineers Helpers	15	6	-9	-9	0
Power Station Operators	13	12	-1	-1	0
Telephone Installers & Repairers	197	198	23	1	22
Telephone Line Installers & Splicers	20	16	-4	-4	0
Other Crafts, Kindred Workers	1,082	1,024	360	-58	418
Bakers	101	86	18	-15	33
Cabinetmakers	48	47	10	-1	11
Carpet Installers	64	72	19	8	11
Crane, Derrick, & Hoist Operators	125	135	43	10	33
Decorators & Window Dressers	61	70	42	9	33
Dental Laboratory Technicians	19	16	8	-3	11
Furniture & Wood Finishers	28	25	8	-3	11
Furriers	0	0	0	0	0
Glaziers	19	28	9	9	0
Inspectors, Log & Lumber	0	0	0	0	0
Inspectors, Other	53	53	22	0	22
Jewelers & Watchmakers	*	*	*	*	*
Millers, Grain, Flour, Feed	0	0	0	0	0
Motion Picture Projectionists	*	*	*	*	*
Opticians, Lens Grinders & Polishers	51	76	47	25	22
Piano & Organ Tuners & Repairers	0	0	0	0	0
Shipfitters	*	*	*	*	*
Shoe Repairers	55	21	-1	-34	33
Sign Painters & Letterers	30	40	32	10	22
Stationary Engineers	132	110	22	-22	44
Stone Cutters & Stone Carvers	36	38	24	2	22
Tailors	78	64	30	-14	44
Upholsterers	29	31	13	2	11
Craft & Kindred Workers, N.E.C.	138	96	2	-42	44
Operatives	14,491	15,307	6,866	816	6,050
Operatives, Except Transportation	11,973	12,632	6,159	659	5,500
Semiskilled Metal Working	994	1,018	354	24	330
Drill Press Operators	46	44	9	-2	11
Furnace Tenders, Smelters, & Pourers, Metal	30	32	13	2	11
Grinding Machine Operatives	69	75	28	6	22
Heaters, Metal	0	0	0	0	0
Lathe & Milling Machine Operatives	93	89	18	-4	22
Metal Platers	88	74	8	-14	22
Other Precision Machine Operatives	60	67	29	7	22
Punch & Stamping Press Operatives	55	55	22	0	22
Solderers	252	189	58	-63	121
Welders & Flame Cutters	301	393	169	92	77
Semiskilled Textile	632	464	96	-168	264
Carding, Lapping, & Combing Operatives	33	16	-6	-17	11
Knitters, Loopers, & Toppers	62	31	-9	-31	22
Spinners, Twisters, & Winders	128	110	59	-18	77
Weavers	31	23	3	-8	11
Other Textile Operatives	378	284	49	-94	143

Table 8 (continued)

LOWELL LMA

OCCUPATIONS	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974-1985		
			Total Demand	Due to Growth	Due to Separations
Semiskilled Packing, Inspecting	2,361	2,690	1,627	329	1,298
Checkers, Examiners, & Inspectors, Mfg.	1,111	1,375	847	264	583
Graders & Sorters, Manufacturing	31	27	18	-4	22
Meat Wrappers, Retail Trade	154	184	140	30	110
Packers & Wrappers, Except Meat & Produce	1,049	1,096	619	47	572
Produce Graders & Packers, Except Factory & Farm	16	8	3	-8	11
Other Operatives, Except Transportation	7,986	8,460	4,082	474	3,608
Asbestos & Insulation Workers	15	21	6	6	0
Assemblers	1,666	2,046	1,282	380	902
Blasters	*	*	*	*	*
Bottling & Canning Operatives	35	37	13	2	11
Surveyor Helpers	0	0	0	0	0
Clothing Ironers & Pressers	118	75	12	-43	55
Cutting Operatives, N.E.C.	171	169	75	-2	77
Dressmakers, Except Factory	54	49	39	-5	44
Drillers, Earth	30	35	16	5	11
Dry Wall Installers, & Lathers	105	124	30	19	11
Dyers	56	57	12	1	11
Filers, Polishers, Sanders, & Buffers	121	116	39	-5	44
Garage Workers & Gas Station Attendants	336	333	41	-3	44
Laundry & Dry Cleaning Operatives, N.E.C.	112	93	47	-19	66
Meat Cutters & Butchers, Except Mfg.	191	175	50	-16	66
Meat Cutters, Butchers	41	39	9	-2	11
Milliners	0	0	0	0	0
Mine Operatives, N.E.C.	*	*	*	*	*
Mixing Operatives	50	49	10	-1	11
Oilers & Greasers, Except Auto	49	35	-3	-14	11
Painters, Manufactured Articles	155	177	77	22	55
Photographic Process Workers	98	122	79	24	55
Riveters & Fasteners	17	16	10	-1	11
Sailors & Deckhands	0	0	0	0	0
Sawyers	49	49	22	0	22
Sewers & Stitchers	985	903	556	-82	633
Shoemaking Machine Operatives	279	175	28	-104	132
Furnace Tenders & Stokers, Except Metal	132	98	21	-34	55
Winding Operatives, N.E.C.	63	75	45	12	33
Miscellaneous Machine Operatives	1,368	1,445	605	77	528
Operatives, N.E.C.	1,683	1,941	962	258	704
Transportation Equipment Operatives	2,518	2,675	707	157	550
Boat Operators	*	*	*	*	*
Bus Drivers	223	216	81	-7	88
Conductors & Operators, Urban Rail Transit	10	13	3	3	0
Delivery & Route Workers	569	633	174	64	110
Fork Lift & Tow Motor Operators	264	301	81	37	44
Rail Vehicle Operators, N.E.C.	0	0	0	0	0
Parking Attendants	13	12	10	-1	11
Railroad Brake Operators	13	14	1	1	0
Railroad Switch Operators	0	0	0	0	0
Taxicab Drivers & Chauffeurs	187	170	49	-17	66
Truck Drivers	1,235	1,312	297	77	220
Service Workers	8,127	8,603	5,646	476	5,170
Cleaning Service Workers	1,602	1,720	1,097	118	979
Lodging Quarters Cleaners, Except Private Household	81	80	65	-1	66
Building Interior Cleaners, N.E.C.	518	599	455	81	374
Janitors & Sextons	1,003	1,041	577	38	539

Table 8 (continued)

LOWELL LVA

OCCUPATIONS	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974-1985		
			Total Demand	Due to Growth	Due to Separations
Food Service Workers	2,654	2,888	1,763	234	1,529
Bartenders	174	208	111	34	77
Waiter's Assistants	37	38	12	1	11
Cooks, Except Private	644	732	385	88	297
Dishwashers	107	100	37	-7	44
Food Counter & Fountain Workers	432	463	295	31	264
Waiters	933	1,025	730	92	638
Food Workers, N.E.C., Except Private	327	322	193	-5	198
Health Service Workers	1,733	1,849	1,601	116	1,485
Dental Assistants	119	163	176	44	132
Health Aides, Except Nursing	130	105	85	-25	110
Health Trainees	11	0	0	-11	11
Lay Midwives	0	0	0	0	0
Nursing Aides, Orderlies, & Attendants	891	932	723	41	682
Practical Nurses	582	649	617	67	550
Personal Service Workers	840	935	744	95	649
Flight Attendants	16	17	23	1	22
Attendants, Recreation & Amusement	34	31	19	-3	22
Attendants, Personal Service, N.E.C.	66	69	58	3	55
Baggage Porters & Bellhops	*	*	*	*	*
Barbers	116	90	18	-26	44
Boarding & Lodging Housekeepers	60	72	78	12	66
Boothblack	0	0	0	0	0
Child Care Workers, Except Private	100	157	167	57	110
Elevator Operators	*	*	*	*	*
Hairdressers, Cosmetologists	302	356	296	54	242
Housekeepers, Except Private	99	87	54	-12	66
School Monitors	16	23	18	7	11
Ushers, Recreation & Amusement	9	12	3	3	0
Welfare Service Aides	11	13	13	2	11
Protective & Service Workers	1,129	1,114	381	-15	396
Crossing Guards & Bridgetenders	30	27	19	-3	22
Fire Fighters	365	393	83	28	55
Guards	387	321	176	-66	242
Marshals & Constables	0	0	0	0	0
Police & Detectives	343	371	94	28	66
Sheriffs & Bailiffs	*	*	*	*	*
Private Household Workers	169	97	60	-72	132
Child Care Workers	70	37	22	-33	55
Cooks, Private	*	*	*	*	*
Housekeepers, Private	38	23	18	-15	33
Launderers, Private Household	0	0	0	0	0
Cleaners & Servants, Private Household	52	31	23	-21	44
Laborers, Except Farm	2,798	3,016	900	218	682
Animal Caretakers, Except Farm	82	123	85	41	44
Carpenters, Helpers	108	105	8	-3	11
Construction Laborers, Exc.. Carpenter's Help.. . . .	636	687	161	51	110
Fishers, Hunters, & Trappers	*	*	*	*	*
Freight, Material Handlers	443	470	126	27	99

Table 8 (continued)
LOWELL LMA

OCCUPATIONS	Employ- ment 1974	Employ- ment 1985	Labor Demand 1974-1985		
			Total Demand	Due to Growth	Due to Separations
Garbage Collectors	38	52	25	14	11
Gardeners & Groundskeepers, Except Farm	208	236	127	28	99
Longshore Workers & Stevedores	0	0	0	0	0
Timbercutting & Logging Workers	*	*	*	*	*
Stock Handlers	751	839	242	88	154
Teamsters	0	0	0	0	0
Vehicle Washers & Equipment Cleaners	134	140	39	6	33
Warehouse Laborers, N.E.C.	85	65	-9	-20	11
Other Laborers	299	290	101	-9	110
Farmers & Farm Workers	292	167	-26	-125	39
Farmers & Farm Managers	87	50	7	-37	44
Farmers (Owners & Tenants)	86	48	-5	-38	33
Farm Managers	*	*	*	*	*
Farm Laborers, Farm Supervisors	205	117	-22	-88	66
Farm Labor Supervisors	*	*	*	*	*
Farm Laborers, Wage Workers	161	84	-33	-77	44
Farm Laborers, Unpaid Family	35	26	2	-9	11
Farm Laborers, Self-Employed	0	0	0	0	0

* Employment figures suppressed for industries with less than 10 employees in both time periods.

Finally, these projections look only at the demand side of the Lowell Labor Market. While the supply side data is not nearly as refined as the demand side, it must be considered as well in any comprehensive occupational system. This is discussed in the Labor Supply/Demand Imbalances Section.

Labor Turnover

Labor turnover measures the overall flow of manufacturing workers into and out of jobs. The estimate is derived from a sample of employers who report on a monthly basis. These rates can be indicators of both employers and workers perceptions of the labor market. The quit rate can be seen as an example of how workers perceive the availability of jobs. A correlation exists between the quit rate and the unemployment rate with the quit rate decreasing as the unemployment rate increases. Analysis of new hires, layoffs, and recalls indicates how employers perceive future economic conditions. A downturn will usually cause a contraction in employment through attrition, layoffs, and curtailment of new hiring.

The labor turnover rates shown in Table⁹ indicate continuing confidence in the economy. Accession rates are generally higher than separation rates and most industries still have healthy rates of new hires.

Table 9 Labor Turnover Rate*
In Manufacturing
Lowell Labor Market Area
January 1979-March 1980

Month and Year	Employment	Accession Rates			Separation Rates		
		Total	New Hires	Recall	Total	Quits	Layoffs
<u>1980</u>							
March	28,400	4.4	3.8	0.4	5.4	3.1	1.1
February	28,000	4.4	3.7	0.4	4.6	2.9	0.5
January	27,200	7.8	6.8	0.4	4.4	2.9	0.8
<u>1979</u>							
December	26,900	11.5	8.2	0.2	2.8	2.0	0.2
November	26,800	4.8	3.8	0.7	4.4	2.9	0.4
October	26,500	6.1	5.6	0.3	4.1	3.4	0.2
September	26,200	5.1	4.0	0.4	5.3	4.1	0.5
August	26,300	6.3	5.9	0.2	5.4	4.3	0.2
July	25,300	4.4	3.5	0.4	5.1	3.7	0.4
June	25,900	7.6	6.8	0.6	5.8	3.9	0.8
May	24,900	4.9	4.0	0.6	4.3	3.0	0.3
April	24,400	6.1	5.7	0.2	4.8	3.7	0.5
March	24,200	6.2	5.2	0.7	4.6	2.5	1.4
February	24,100	6.1	5.6	0.4	7.4	4.9	1.0
January	24,000	7.3	6.2	0.4	5.5	3.0	1.4

* All rates are per 100 employed workers on manufacturer's current month's payrolls and are not seasonally adjusted.

Definitions

<u>Labor Turnover</u>	Refers to the gross movement of wage and salary workers into and out of jobs with respect to individual firms. Data are accumulated for a calendar month and expressed as a rate per 100 workers.
<u>Total Accessions</u>	All permanent or temporary additions, whether new or former employees.
<u>New Hires</u>	Permanent or temporary additions of persons who have not been specifically recalled by the employer, or transferred from another establishment of the same company.
<u>Recalls</u>	Permanent or temporary additions to the employment roll of persons specifically recalled to a job in the same establishment of the company following a period of layoff lasting more than seven consecutive days.
<u>Total Separations</u>	Terminations of employment resulting from: quits, discharges, layoffs, transfers out to another establishment of the same company, military duty and miscellaneous causes.
<u>Quits</u>	Terminations of employment initiated by employee for any reason except to retire, to transfer to another establishment of the same company, military duty and miscellaneous causes.
<u>Layoffs</u>	Suspensions from pay status (which last or are expected to last more than 7 consecutive calendar days) initiated by the employer without prejudice to the worker for such reasons as lack of orders, model changeover, termination of seasonal employment, etc.

Table 10 Hours and Earnings For Manufacturing
Lowell Labor Area
1969-1979

	Average Weekly Earnings	Average Weekly Hours	Average Hourly Earnings
<u>1979</u>			
January	\$200.06	38.4	\$5.21
February	202.18	38.9	5.08
March	207.36	40.5	5.12
April	207.77	39.5	5.26
May	209.75	39.5	5.31
June	205.41	39.2	5.24
July	199.26	36.9	5.40
August	198.91	38.4	5.18
September	205.44	38.4	5.35
October	200.19	37.7	5.31
November	200.19	37.7	5.31
December	219.14	39.7	5.52
<u>Annual Average</u>			
1979	\$204.64	38.7	\$5.29
1978	195.20	39.4	4.92
1977	175.63	38.6	4.55
1976	167.96	38.7	4.34
1975	159.01	38.5	4.13
1974	147.03	38.7	3.82
1973	140.26	39.4	3.56
1972	130.75	39.5	3.31
1971	116.96	38.6	3.03
1970	111.65	38.5	2.90
1969	104.76	38.8	2.70

V. Recent Unemployment Trends and Outlook

Final figures for 1979 placed the Lowell LMA's annual average unemployment rate at 5.5 percent, equal to the statewide rate and below the national average of 5.8 percent for the first time. The rate gives a clear indication of the turnabout experienced by the area's economy in recent years. From the depths of the 1975 recession with an unemployment rate of 11.9 percent, the Lowell LMA's rate has decreased 6.4 percentage points which compares favorably with the drop of 5.7 statewide and 2.7 nationally, for the same period.

After finishing out 1979 with a December unemployment rate of 5.1 percent, there was a substantial rise of 1.3 percentage points in the January 1980 rate, due largely to post holiday seasonal declines in wholesale and retail trade, and services, as well as declines in government and finance, insurance, and real estate. Then the rate drops steadily to 5.5 percent in February and 5.1 percent in March. In view of the fact that the National Bureau of Economic Research has dated a recession as having started in February, it is interesting to note that the Lowell LMA's 1st quarter 1980 unemployment rate of 5.7 is a full percentage point lower than the first quarter of 1979.

We expect Massachusetts unemployment rate to average approximately one-half to one percentage point below the national average rate. As of this writing, the Data Resources Incorporated (DRI) national forecast is for an 8.5 percent average unemployment rate during FY'81. This would give Massachusetts an average unemployment rate of about 8 percent over the same time period.

Given the structural soundness of the Lowell LMA's economy as indicated by the overall nonagricultural employment increases, which took place over the year it is not unreasonable to expect the LMA to fare as well or better than the state. The Lawrence/Berkeley Labor Force Projections in Table 3 are based on a projected unemployment rate of 7.8 percent.

Table 11 Unemployment Rates
Lowell LMA, Massachusetts and United States
1975 Through 1980

Year and Month	Total Employment	Total Unemployment	Labor Force	Unemployment Rate		
				Lowell LMA	Mass.	U. S.
1975	91,072	12,259	103,331	11.9	11.2	8.5
1976	95,917	10,918	106,835	10.2	9.5	7.7
1977	98,958	9,136	108,094	8.5	8.1	7.0
1978	105,123	7,342	112,465	6.5	6.1	6.0
1979	111,639	6,540	118,179	5.5	5.5	5.8
<u>1979</u>						
January	110,442	9,033	119,475	7.6	7.5	6.4
February	111,225	6,963	118,188	5.9	6.6	6.4
March	110,540	7,375	117,915	6.3	6.7	6.1
April	111,219	6,024	117,243	5.1	5.3	5.5
May	110,122	5,878	116,000	5.1	5.0	5.2
June	113,759	6,397	120,156	5.3	5.1	6.0
July	114,017	6,011	120,028	5.0	5.0	5.8
August	115,292	5,918	121,210	4.9	4.7	5.9
September	111,772	7,875	119,647	6.6	6.4	5.6
October	111,379	5,357	116,746	4.6	4.4	5.6
November	109,500	6,202	115,702	5.4	4.8	5.6
December	110,404	5,438	115,852	4.7	5.1	5.6
<u>1980</u>						
January	109,400	7,400	116,800	6.4	6.4	6.8
February	110,000	6,400	116,400	5.5	5.7	6.8
March	111,200	6,000	117,200	5.1	5.3	6.6

Source: Division of Employment Security - Labor Area Research Department

Table 12 Labor Force Data*
City of Lowell
1975 Through March 1980

	Total Employment	Total Unemployment	Labor Force	Unemployment Rate
1975	42,533	6,088	48,621	12.5
1976	44,796	5,422	50,218	10.8
1977	46,216	4,537	50,753	8.9
1978	49,096	3,646	52,742	6.9
1979	52,138	3,248	55,386	5.9
<u>1979</u>				
January	51,579	4,486	56,065	8.0
February	51,945	3,433	55,403	6.2
March	51,625	3,662	55,287	6.6
April	51,942	2,992	54,934	5.4
May	51,430	2,919	54,349	5.4
June	53,128	3,177	56,305	5.6
July	53,249	2,985	56,234	5.3
August	53,344	2,939	56,783	5.2
September	52,200	3,911	56,111	7.0
October	52,017	2,665	54,682	4.9
November	51,139	3,080	54,219	5.7
December	51,562	2,701	54,263	5.0
<u>1980</u>				
January	51,032	3,680	54,712	6.7
February	51,317	3,154	54,471	5.8
March	52,012	2,948	54,960	5.4

* Disaggregated from the Lowell LMA by the Census Share Method

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 113

Table 13 SELECTED CHARACTERISTICS OF INSURED UNEMPLOYED
LOWELL OFFICE

	ALL PROGRAMS	
	NUMBER	PERCENT
TOTAL	2547	100.0
AGE		
UNDER 20	-	-
UNDER 25	403	15.8
25 - 34	673	26.4
35 - 44	519	20.4
45 - 54	480	18.8
55 - 64	340	13.3
65 & OVER	133	5.2
I.N.A.	-	-
SEX		
MEN	1132	44.4
WOMEN	1415	55.6
I.N.A.	-	-
ETHNIC GROUP		
WHITE	2524	99.1
NON-WHITE	17	.7
I.N.A.	7	.3
SPANISH SURNAME	17	.7
OCCUPATION		
PROF., TECH., MGT	403	15.8
CLERICAL/SALES	589	23.1
SERVICES	226	8.9
FARM, FISH, FOR.	13	.5
PROCESSING	40	1.6
MACHINE TRADES	213	8.4
HEAVY WORK	253	9.9
STRUCTURAL	286	11.2
MISC. WORK	519	20.4
I.N.A.	3	.1
RECENT DURATION		
0-9 WEEKS	1612	63.3
10-19 WEEKS	556	21.8
20-29 WEEKS	360	14.1
30 + WEEKS	20	.8

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 113

CONTINUED -1
Table 13ALL PROGRAMS
NUMBER PERCENT

INDUSTRY ATTACH.		
MANUFACTURING	609	23.9
CON. CONSTRUCT	163	6.4
TRAN./UTIL.	323	12.7
WHOL/RET.TRADE	380	14.9
FIN/INS/R.E.	80	3.1
SERVICES	450	17.7
GOVERNMENTS	509	20.0
OTHERS	3	.1
I.N.A.	30	1.2

AVE. WEEKLY WAGE		
UNDER \$100	579	22.7
\$100 - \$149	593	23.3
\$150 - \$199	556	21.8
\$200 - \$249	300	11.8
\$250 - \$299	183	7.2
\$300 OR MORE	323	12.7
I.N.A.	13	.5

SEPARATION REASON		
LAYOFF	2271	89.2
QUIT VOL. RET.	3	.1
QUIT PREGNANCY	-	-
QUIT OTHER	80	3.1
DISCHARGES	153	6.0
LABOR DISPUTE	-	-
OTHER/INA	40	1.6

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 213A

Table 13 OCCUPATIONS OF THE INSURED UNEMPLOYED
LOWELL OFFICE

	ALL AGES NUMBER	PER.	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL
TOTAL	2601	100.0	1612	989	-
0,1 PROF., TECH., MGR.	406	15.6	293	113	-
00,01 ARCH./ENGINEER	40	1.5	30	10	-
02 MATH & PHY. SCIENCE	-	-	-	-	-
04 LIFE SCIENCES	3	.1	3	-	-
05 SOCIAL SCIENCES	3	.1	3	-	-
07 MEDICINE & HEALTH	23	.9	17	7	-
09 EDUCATION	150	5.8	107	43	-
10 MUSEUM, LIBRARY	7	.3	7	-	-
11 LAW & JURISPRUDENCE	-	-	-	-	-
12 RELIGION & THEOLOGY	-	-	-	-	-
13 WRITING	-	-	-	-	-
14 ART	20	.8	17	3	-
15 ENTERTAINMENT & REC	-	-	-	-	-
16 ADMINISTRATIVE SPEC	67	2.6	50	17	-
18 MANAGERS & OFFICIAL	80	3.1	50	30	-
19 PROFESSIONAL, TECH	10	.4	7	3	-
2 CLERICAL, SALES	596	22.9	403	193	-
20 STENO, TYPE, FILING	236	9.1	180	57	-
21 COMPUTING & ACCOUNT	223	8.6	123	100	-
22 MATERIAL & PROD REC	43	1.7	37	7	-
23 INFO & MESSAGE DIST	20	.8	17	3	-
24 MISC CLERICAL	27	1.0	17	10	-
25 SALESMEN, SERVICES	-	-	-	-	-
26,28 SALES, COMMODITI	33	1.3	23	10	-
29 MERCHANDISING	13	.5	7	7	-
3 SERVICES	226	8.7	80	147	-
30 DOMESTIC SERVICE	3	.1	3	-	-
31 FOOD & BEVERAGE	113	4.3	43	70	-
32 LODGING	-	-	-	-	-
33 BARBERING, COSMETOLO	3	.1	3	-	-
34 AMUSEMENT & REC	7	.3	-	7	-
35 MISC PERSONAL SERV	23	.9	17	7	-
36 APPAREL & FURNISH	-	-	-	-	-
37 PROTECTIVE SERV	60	2.3	10	50	-
38 BUILDING & RELATED	17	.7	3	13	-
40-46 FARM/FISH	13	.5	10	3	-
5 PROCESSING	40	1.5	27	13	-
50 PROCESSING OF METAL	10	.4	3	7	-
51 ORE REFINING&FOUNDR	7	.3	3	3	-
52 PROCESS/FOOD, TOBACO	3	.1	3	-	-

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 213A

CONTINUED -1 Table 13

	ALL AGES NUMBER	PER.	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL
53 PROCESSING OF PAPER	-	-	-	-	-
54 PROCFS/OIL, COAL, GAS	-	-	-	-	-
55 CHEM, PLASTIC, SYN, RUB	17	.7	13	3	-
56 WOOD AND WOOD PROD	-	-	-	-	-
57 STONE, CLAY, GLASS	3	.1	3	-	-
58 LEATHER, TEXTILES	-	-	-	-	-
59 PROCES/OCCUPATIONS	-	-	-	-	-

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 213B

Table 13 OCCUPATIONS OF THE INSURED UNEMPLOYED
LOWELL OFFICE

	ALL AGES NUMBER	PER.	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL
TOTAL	2601	100.0	1612	989	-
6 MACHINE TRADES	230	8.8	127	103	-
60 METAL MACHINING	70	2.7	37	33	-
61 METALWORKING OCCUP	27	1.0	23	3	-
62,63 MECHANICS REPAIR	53	2.0	30	23	-
64 PAPERWORKING	10	.4	7	3	-
65 PRINTING	7	.3	7	-	-
66 WOOD MACHING	7	.3	7	-	-
67 MACH STONE, CLAY, GLA	-	-	-	-	-
68 TEXTILE	23	.9	10	13	-
69 MACHINE TRADES OCCU	33	1.3	7	27	-
7 BENCH WORK	276	10.6	150	127	-
70 FAB. ASSBLY&REPAIR	20	.8	7	13	-
71 FAB. REPAIR SCI&MED	10	.4	10	-	-
72 ASBLY&REPAIR ELECT	103	4.0	73	30	-
73 FAB. REPR ASSRT MATL	17	.7	10	7	-
74 PAINTING, DECORAT	23	.9	17	7	-
75 FAB&REPR PLASTC SYN	3	.1	3	-	-
76 FAB&REPR WOOD PROD	-	-	-	-	-
77 FAB&REPR SAND STONE	10	.4	10	-	-
78 FAB&REPR TEXTILE	90	3.5	20	70	-
79 BENCH WORK OCCUPAT	-	-	-	-	-
8 STRUCTURAL WORK	290	11.1	190	100	-
80 METAL FABRICATING	27	1.0	23	3	-
81 WELDERS, FLAME CUTT	3	.1	3	-	-
82 ELECTRICAL ASSBLY	23	.9	17	7	-
84 PAINT, PLASTER, WATER	27	1.0	20	7	-
85 EXCAVAT, GRAD, PAVE	17	.7	7	10	-
86 CONSTRUCTION OCCUPA	167	6.4	103	63	-
89 STRUCTURAL WORK OCC	23	.9	13	10	-
9 MISCELLANEOUS	519	20.0	333	186	-
90 MOTOR FREIGHT	67	2.6	53	13	-
91 TRANSPORTATION OCCU	303	11.6	176	127	-
92 PACKAGING&MATERIALS	90	3.5	63	27	-
93 EXTRACT OF MINERALS	-	-	-	-	-
94 LOGGING OCCUPATIONS	-	-	-	-	-
95 PROD&DIST, UTILITIES	3	.1	3	-	-
96 AMUSE, REC., MOVIES	-	-	-	-	-
97 GRAPHIC ART WORK	30	1.2	20	10	-
999 INFO NOT AVAILABLE	27	1.0	-47- 17	10	-

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 213C

Table 13 OCCUPATIONS OF THE INSURED UNEMPLOYED
LOWELL OFFICE

		ALL AGES NUMBER	PER.	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL
TOTAL		2601	100.0	1612	989	-
ELECTRICAL ENG.	003	3	.1	3	-	-
MECHANICAL ENG.	007	13	.5	13	-	-
INDUSTRIAL ENG.	012	7	.3	3	3	-
DRAFTING & RELATED	017	7	.3	3	3	-
ARCH./ENG. NEC	019	7	.3	7	-	-
PSYCHOLOGY	045	3	.1	3	-	-
ECONOMICS	050	3	.1	3	-	-
MED./DENTAL TECH.	078	13	.5	10	3	-
MED. & HEALTH, NEC	079	7	.3	3	3	-
COLLEGE/UNIVERSITY ED	090	13	.5	7	7	-
SECONDARY ED.	091	50	1.9	33	17	-
PRIMARY SCHOOL ED	092	50	1.9	40	10	-
HANDICAPPED ED.	094	10	.4	7	3	-
VOCATIONAL ED. NEC	097	3	.1	-	3	-
EDUCATION, NEC	099	23	.9	20	3	-

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 213D

Table 13 OCCUPATIONS OF THE INSURED UNEMPLOYED
LOWELL OFFICE

		ALL AGES NUMBER	PER.	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL
TOTAL		2601	100.0	1612	989	-
LIBRARY WORK	100	3	.1	3	-	-
MUS., LIB., ARCH., NEC	109	3	.1	3	-	-
COMMERCIAL ART	141	7	.3	7	-	-
PHOTOGRAPHY	143	7	.3	7	-	-
ART WORK, NEC	149	3	.1	3	-	-

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 213E

Table 13 OCCUPATIONS OF THE INSURED UNEMPLOYED
LOWELL OFFICE

		ALL AGES NUMBER	PER.	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL
TOTAL		2601	100.0	1612	989	-
ACCOUNTING/AUDITING	160	7	.3	7	-	-
PURCHASING MGT	162	7	.3	7	-	-
SALES/DISTRIBUT MGT	163	17	.7	10	7	-
PERSONNEL/TRAIN ADM	166	7	.3	7	-	-
INSPECT/INVEST, MGT	168	3	.1	-	3	-
ADMIN SPECIALT NEC	169	27	1.0	20	7	-
MFG INDUSTRY MGT	183	3	.1	-	3	-
TRANS/COMN/UTILT MGT	184	3	.1	-	3	-
WHLE/RETAIL TRAD MGT	185	40	1.5	27	13	-
FINANC/INSUR/R E MGT	186	3	.1	-	3	-
SERVICE INDUSTRY MGT	187	23	.9	17	7	-
MISC MGT WORK NEC	189	7	.3	7	-	-
SECRETARIAL WORK	201	70	2.7	53	17	-
TYPING	203	63	2.4	57	7	-
FILING	206	10	.4	10	-	-
STEN/TYP/FIL/RELATED	209	93	3.6	60	33	-
BOOKKEEPING	210	50	1.9	20	30	-
CASHIERING	211	40	1.5	30	10	-
AUTOMAT DATA PROCESS	213	40	1.5	23	17	-
BILLING-MACHINE WORK	214	13	.5	7	7	-
BOOKKEEP-MACH WORK	215	23	.9	13	10	-
COMPUTING MACH WORK	216	13	.5	10	3	-
COMPUT/ACCT RECORDNG	219	43	1.7	20	23	-
CLERICAL WORK PROD	221	3	.1	3	-	-
CLERICAL SHIP/RECV	222	37	1.4	33	3	-
MESSENGER & RELATED	230	3	.1	3	-	-
TELEPHONE WORK	235	7	.3	3	3	-
RECEPTION/INFO DISP	237	10	.4	10	-	-

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 213F

Table 13 OCCUPATIONS OF THE INSURED UNEMPLOYED
LOWELL OFFICE

		ALL AGES NUMBER	PER.	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL
TOTAL		2601	100.0	1612	989	-
ADJUSTING	241	3	.1	-	3	-
MISC CLERICAL WORK	249	20	.8	13	7	-
COMMODITIES NEC	289	3	.1	-	3	-
SALES CLERKING	290	3	.1	3	-	-
MERCHANDISING WORK	299	10	.4	3	7	-
FOOD&BEVERAGE SERV	310	13	.5	3	10	-
FOOD SERVING	311	33	1.3	17	17	-
COOKING,LARGE HOTELS	313	47	1.8	17	30	-
MISC COOKING	315	10	.4	3	7	-
MEAT CUTTING	316	3	.1	-	3	-
KITCHEN WORK NEC	318	7	.3	3	3	-
CLEANING & RELAT	381	10	.4	-	10	-
JANITORIAL SERV	382	7	.3	3	3	-
MIXING & BLENDING	550	7	.3	3	3	-
FILTER,STRAIN&SEPERA	551	3	.1	3	-	-
EXTRUDING	557	3	.1	3	-	-
PROCESSING,CHEMICALS	559	3	.1	3	-	-

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 213G

Table 13 OCCUPATIONS OF THE INSURED UNEMPLOYED
LOWELL OFFICE

		ALL AGES NUMBER	PER.	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL
TOTAL		2601	100.0	1612	989	-
MACHINING & RELATED	600	13	.5	7	7	-
TOOLMAKING & RELATED	601	3	.1	3	-	-
MILLING & PLANING	605	3	.1	-	3	-
BORING	606	3	.1	3	-	-
SAWING	607	3	.1	-	3	-
METAL MACHINING NEC	609	43	1.7	23	20	-
FABRICATING MACHINE	616	13	.5	10	3	-
MISC METALWORKING	619	13	.5	13	-	-
MOTORIZED VEHICLE&ENG.	620	30	1.2	20	10	-
AIRCRAFT REPAIRING	621	7	.3	3	3	-
CARD, COMB, DRAW, RELA	680	3	.1	-	3	-
OPINNING	682	3	.1	-	3	-
WEAVING & RELATED	683	13	.5	7	7	-
TEXTILE MACHINE WORK	689	3	.1	3	-	-
PLASTICS, SYNTHETICS,	690	27	1.0	3	23	-
MISC. MACHINE WORK	699	7	.3	3	3	-
FAB/ASBL&REPR METAL	700	3	.1	3	-	-
METAL UNIT ASBL& ADJ	706	3	.1	3	-	-
FAB/ASBL&REPR METAL	709	10	.4	-	10	-
COMMUNICATION EQUIP	722	3	.1	3	-	-
ELECTRICAL APPLI&FIX	723	37	1.4	17	20	-
LITE BULBS&ELECTRONI	725	7	.3	7	-	-
ELECTRONIC COMPONENT	726	50	1.9	40	10	-
STORAGE BATTERY	727	7	.3	7	-	-

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 213H

Table 13 OCCUPATIONS OF THE INSURED UNEMPLOYED
LOWELL OFFICE

		ALL AGES NUMBER	PER.	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL
TOTAL		2601	100.0	1612	989	-
UPHOLSTER, MATTRESS	780	10	.4	3	7	-
LAY OUT, MARK, CUT, PUN	781	23	.9	10	13	-
HANDSEW, MEND, EMBROID	782	10	.4	-	10	-
FUR WORKING	783	3	.1	-	3	-
MACH SEW, NONGARMENT	787	33	1.3	3	30	-
FOOTWEAR	788	10	.4	3	7	-
FIIT, BOLT, SCREW, RELA	801	7	.3	7	-	-
BOILERMAKING & RELAT	805	3	.1	3	-	-
TRANSP EQUIP ASSEMBL	806	7	.3	3	3	-
BODY WORK, TRANSP EQ	807	3	.1	3	-	-
MISC METAL FABRICAT	809	7	.3	7	-	-
LIGHT EQUIP&BUILD	824	20	.8	17	3	-
ASSMBLY, INSTALL, REPR	829	3	.1	-	3	-
EXCAVAT, GRADNG&RELAT	850	10	.4	-	10	-
EXCAV, GRAD, PAVING	859	7	.3	7	-	-
CARPENTRY & RELATED	860	70	2.7	30	40	-
BRICK&STONE MASONRY	861	7	.3	3	3	-
PLUMBING, GAS FIIT	862	7	.3	7	-	-
FLOOR LAYING&FINISH	864	3	.1	3	-	-
MISC CONSTRUCTION	869	80	3.1	60	20	-
TRAILER-TRUCK DRIV	904	3	.1	-	3	-
HEAVY TRUCK DRIV	905	53	2.0	43	10	-
LIGHT TRUCK DRIVING	906	10	.4	10	-	-
PACKAGING	920	7	.3	3	3	-
HOISTING & CONVEYING	921	33	1.3	23	10	-
MATERIAL MOVING&STOR	922	7	.3	7	-	-
PACK/MATERIALS HANDL	929	43	1.7	30	13	-

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 313

AGE AND AVERAGE WEEKLY EARNINGS OF THE INSURED UNEMPLOYED
Table 13 LOWELL OFFICE

	TOTAL		MALES		FEMALES	
	NUMBER	PER.	NUMBER	PER.	NUMBER	PER.
TOTAL	2601	100.0	1152	100.0	1449	100.0
AGE GROUPS						
TOTAL	2601	100.0	1152	100.0	1449	100.0
UNDER 20	-	-	-	-	-	-
UNDER 25	410	15.8	253	22.0	157	10.8
25 - 34	676	26.0	293	25.4	383	26.4
35 - 44	526	20.2	170	14.8	356	24.6
45 - 54	486	18.7	183	15.9	303	20.9
55 - 64	360	13.8	157	13.6	203	14.0
65 & OVER	143	5.5	97	8.4	47	3.2
WEEKLY EARN.						
TOTAL	2587	99.5	1142	99.1	1445	99.7
UNDER \$100	583	22.4	87	7.6	496	34.2
\$100-\$149	616	23.7	206	17.9	410	28.3
\$150-\$199	569	21.9	283	24.6	286	19.7
\$200-\$249	303	11.6	170	14.8	133	9.2
\$250-\$299	190	7.3	117	10.2	73	5.0
\$300 +	326	12.5	280	24.3	47	3.2

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 513

Table 13 DURATION MOST RECENT SPELL (ALL PROGRAMS)
LOWELL OFFICE

	TOTAL	0-4 WEEKS	5-14 WEEKS	15-26 WEEKS	27+ WEEKS
TOTAL	2601	646	1395	470	90
OCCUPATION					
PROF, TECH, MGT	406	100	216	83	7
CLERICAL/SALES	596	120	323	130	23
SERVICES	226	47	143	30	7
FARM, FISH, FURS	13	3	-	10	-
PROCESSING	40	7	17	10	7
MACHINE TRADES	230	70	110	37	13
BENCH WORK	276	137	87	50	3
STRUCTURAL	290	87	117	67	20
MISC. WORK	519	77	383	50	10
I.N.A.	3	-	-	3	-
INDUSTRY ATTACH.					
MANUFACTURING	659	200	273	150	37
CONSTRUCTION	163	57	57	40	10
TRANS/UTIL	323	43	263	13	3
WHOL/RET/TRADE	380	83	223	60	13
FIN/INS/R.E.	80	30	17	27	7
SERVICES	450	120	233	87	10
GOVERNMENTS	513	107	303	93	10
OTHERS	3	-	3	-	-
I.N.A.	30	7	23	-	-
MALES	1152	276	563	266	47
UNDER 20	-	-	-	-	-
UNDER 25	253	50	130	67	7
25 - 34	293	83	123	80	7
35 - 44	170	37	70	57	7
45 - 54	183	47	100	27	10
55 - 64	157	40	87	23	7
65 & OVER	97	20	53	13	10
FEMALES	1449	370	833	203	43
UNDER 20	-	-	-	-	-
UNDER 25	157	33	70	40	13
25 - 34	383	90	203	77	13
35 - 44	356	87	253	17	-
45 - 54	303	80	193	27	3
55 - 64	203	53	97	40	13
65 & OVER	47	27	17	3	-

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 262A

Table 13 OCCUPATIONS OF THE INSURED UNEMPLOYED
LOWELL CETA

	ALL AGES NUMBER	PER.	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL
TOTAL	2478	100.0	1535	942	-
0,1 PROF., TECH., MGR.	383	15.5	280	103	-
00,01 ARCH./ENGINEER	40	1.6	30	10	-
02 MATH & PHY. SCIENCE	-	-	-	-	-
04 LIFE SCIENCES	3	.1	3	-	-
05 SOCIAL SCIENCES	3	.1	3	-	-
07 MEDICINE & HEALTH	23	.9	17	7	-
09 EDUCATION	140	5.6	103	37	-
10 MUSEUM, LIBRARY	7	.3	7	-	-
11 LAW & JURISPRUDENCE	-	-	-	-	-
12 RELIGION & THEOLOGY	-	-	-	-	-
13 WRITING	-	-	-	-	-
14 ART	17	.7	13	3	-
15 ENTERTAINMENT & REC	-	-	-	-	-
16 ADMINISTRATIVE SPEC	67	2.7	50	17	-
18 MANAGERS & OFFICIAL	77	3.1	47	30	-
19 PROFESSIONAL, TECHN	3	.1	3	-	-
2 CLERICAL, SALES	576	23.2	390	186	-
20 STENO, TYPE, FILING	226	9.1	173	53	-
21 COMPUTING & ACCOUNT	216	8.7	120	97	-
22 MATERIAL & PROD REC	43	1.7	37	7	-
23 INFO & MESSAGE DIST	17	.7	13	3	-
24 MISC CLERICAL	27	1.1	17	10	-
25 SALESMEN, SERVICES	-	-	-	-	-
26,28 SALES, COMMODITI	33	1.3	23	10	-
29 MERCHANDISING	13	.5	7	7	-
3 SERVICES	216	8.7	73	143	-
30 DOMESTIC SERVICE	3	.1	3	-	-
31 FOOD & BEVERAGE	103	4.2	37	67	-
32 LODGING	-	-	-	-	-
33 BARBERING, COSMETOLO	3	.1	3	-	-
34 AMUSEMENT & REC	7	.3	-	7	-
35 MISC PERSONAL SERV	23	.9	17	7	-
36 APPAREL & FURNISH	-	-	-	-	-
37 PROTECTIVE SERV	60	2.4	10	50	-
38 BUILDING & RELATED	17	.7	3	13	-
40-46 FARM/FISH	13	.5	10	3	-
5 PROCESSING	37	1.5	23	13	-
50 PROCESSING OF METAL	10	.4	3	7	-
51 ORE REFINING&FOUNDR	3	.1	-	3	-
52 PROCESS/FOOD, TOBACO	3	.1	3	-	-

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 262A

CONTINUED -1

	Table 13	ALL AGES NUMBER	PER.	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL.
53 PROCESSING OF PAPER		-	-	-	-	-
54 PROCES/OIL, COAL, GAS		-	-	-	-	-
55 CHEM, PLASTIC, SYN, RUB		17	.7	13	3	-
56 WOOD AND WOOD PROD		-	-	-	-	-
57 STONE, CLAY, GLASS		3	.1	3	-	-
58 LEATHER, TEXTILES		-	-	-	-	-
59 PROCES/OCCUPATIONS		-	-	-	-	-

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 262B

Table 13 OCCUPATIONS OF THE INSURED UNEMPLOYED
LOWELL CETA

	ALL AGES NUMBER	PER.	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL
TOTAL	2478	100.0	1535	942	-
6 MACHINE TRADES	220	8.9	123	97	-
60 METAL MACHINING	63	2.5	33	30	-
61 METALWORKING OCCUP	27	1.1	23	3	-
62,63 MECHANICS REPAIR	50	2.0	30	20	-
64 PAPERWORKING	10	.4	7	3	-
65 PRINTING	7	.3	7	-	-
66 WOOD MACHINING	7	.3	7	-	-
67 MACH STONE,CLAY,GLA	-	-	-	-	-
68 TEXTILE	23	.9	10	13	-
69 MACHINE TRADES OCCU	33	1.3	7	27	-
7 BENCH WORK	250	10.1	133	117	-
70 FAB,ASSBLY&REPAIR	20	.8	7	13	-
71 FAB,REPAIR SCI&MED	7	.3	7	-	-
72 ASSBLY&REPAIR ELECT	93	3.8	67	27	-
73 FAB,REPR ASSRT MATL	10	.4	3	7	-
74 PAINTING, DECORAT	23	.9	17	7	-
75 FAB&REPR PLASTIC SYN	3	.1	3	-	-
76 FAB&REPR WOOD PROD	-	-	-	-	-
77 FAB&REPR SAND STONE	10	.4	10	-	-
78 FAB&REPR TEXTILE	83	3.3	20	63	-
79 BENCH WORK OCCUPAT	-	-	-	-	-
8 STRUCTURAL WORK	283	11.4	183	100	-
80 METAL FABRICATING	27	1.1	23	3	-
81 WELDERS, FLAME CUTT	3	.1	3	-	-
82 ELECTRICAL ASSBLY	23	.9	17	7	-
84 PAINT,PLASTER,WATER	23	.9	17	7	-
85 EXCAVAT,GRAD,PAVE	17	.7	7	10	-
86 CONSTRUCTION OCCUPA	163	6.6	100	63	-
89 STRUCTURAL WORK OCC	23	.9	13	10	-
9 MISCELLANEOUS	496	20.0	320	176	-
90 MOTOR FREIGHT	57	2.3	50	7	-
91 TRANSPORTATION OCCU	290	11.7	167	123	-
92 PACKAGING&MATERIALS	90	3.6	63	27	-
93 EXTRACT OF MINERALS	-	-	-	-	-
94 LOGGING OCCUPATIONS	-	-	-	-	-
95 PROD&DIST,UTILITIES	3	.1	3	-	-
96 AMUSE, REC., MOVIES	-	-	-	-	-
97 GRAPHIC ART WORK	30	1.2	20	10	-
999 INFO NOT AVAILABLE	27	1.1	-58- 17	10	-

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 262C

Table 13 OCCUPATIONS OF THE INSURED UNEMPLOYED
LOWELL CETA

		ALL AGES NUMBER	PER.	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL
TOTAL		2478	100.0	1535	942	-
ELECTRICAL ENG.	003	3	.1	3	-	-
MECHANICAL ENG.	007	13	.5	13	-	-
INDUSTRIAL ENG.	012	7	.3	3	3	-
DRAFTING & RELATED	017	7	.3	3	3	-
ARCH./ENG. NEC	019	7	.3	7	-	-
PSYCHOLOGY	045	3	.1	3	-	-
ECONOMICS	050	3	.1	3	-	-
MED./DENTAL TECH.	078	13	.5	10	3	-
MED. & HEALTH, NEC	079	7	.3	3	3	-
COLLEGE/UNIVERSITY ED	090	10	.4	7	3	-
SECONDARY ED.	091	47	1.9	33	13	-
PRIMARY SCHOOL ED	092	47	1.9	37	10	-
HANDICAPPED ED.	094	10	.4	7	3	-
VOCATIONAL ED. NEC	097	3	.1	-	3	-
EDUCATION, NEC	099	23	.9	20	3	-

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 262D

Table 13 OCCUPATIONS OF THE INSURED UNEMPLOYED
LOWELL CETA

		ALL AGES NUMBER	PER.	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL
TOTAL		2478	100.0	1535	942	-
LIBRARY WORK	100	3	.1	3	-	-
MUS., LIB., ARCH., NEC	109	3	.1	3	-	-
COMMERCIAL ART	141	7	.3	7	-	-
PHOTOGRAPHY	143	3	.1	3	-	-
ART WORK, NEC	149	3	.1	3	-	-

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 262E

Table 13 OCCUPATIONS OF THE INSURED UNEMPLOYED
LOWELL CETA

		ALL AGES NUMBER	PER.	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL
TOTAL		2478	100.0	1535	942	-
ACCOUNTING/AUDITING	160	7	.3	7	-	-
PURCHASING MGT	162	7	.3	7	-	-
SALES/DISTRIBUT MGT	163	17	.7	10	7	-
PERSONNEL/TRAIN ADM	166	7	.3	7	-	-
INSPECT/INVEST, MGT	168	3	.1	-	3	-
ADMIN SPECIALT NEC	169	27	1.1	20	7	-
MFG INDUSTRY MGT	183	3	.1	-	3	-
TRANS/COMN/UTILT MGT	184	3	.1	-	3	-
WHLE/RETAIL TRAD MGT	185	40	1.6	27	13	-
FINANC/INSUR/R E MGT	186	3	.1	-	3	-
SERVICE INDUSTRY MGT	187	20	.8	13	7	-
MISC MGT WORK NEC	189	7	.3	7	-	-
SECRETARIAL WORK	201	70	2.8	53	17	-
TYPING	203	57	2.3	50	7	-
FILING	206	10	.4	10	-	-
STEN/TYP/FIL/RELATED	209	90	3.6	60	30	-
BOOKKEEPING	210	50	2.0	20	30	-
CASHIERING	211	40	1.6	30	10	-
AUTOMAT DATA PROCESS	213	40	1.6	23	17	-
BILLING-MACHINE WORK	214	13	.5	7	7	-
BOOKKEEP-MACH WORK	215	20	.8	10	10	-
COMPUTING MACH WORK	216	13	.5	10	3	-
COMPUT/ACCT RECORDNG	219	40	1.6	20	20	-
CLERICAL WORK PROD	221	3	.1	3	-	-
CLERICAL SHIP/RECV	222	37	1.5	33	3	-
MESSENGER & RELATED	230	3	.1	3	-	-
TELEPHONE WORK	235	7	.3	3	3	-
RECEPTION/INFO DISP	237	7	.3	7	-	-

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 262F

Table 13 OCCUPATIONS OF THE INSURED UNEMPLOYED
LOWELL CETA

		ALL AGES NUMBER	PER.	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL
TOTAL		2478	100.0	1535	942	-
ADJUSTING	241	3	.1	-	3	-
MISC CLERICAL WORK	249	20	.8	13	7	-
COMMODITIES NEC	289	3	.1	-	3	-
SALES CLERKING	290	3	.1	3	-	-
MERCHANDISING WORK	299	10	.4	3	7	-
FOOD&BEVERAGE SERV	310	13	.5	3	10	-
FOOD SERVING	311	27	1.1	10	17	-
COOKING, LARGE HOTELS	313	43	1.7	17	27	-
MISC COOKING	315	10	.4	3	7	-
MEAT CUTTING	316	3	.1	-	3	-
KITCHEN WORK NEC	318	7	.3	3	3	-
CLEANING & RELAT	381	10	.4	-	10	-
JANITORIAL SERV	382	7	.3	3	3	-
MIXING & BLENDING	550	7	.3	3	3	-
FILTER, STRAIN&SEPERA	551	3	.1	3	-	-
EXTRUDING	557	3	.1	3	-	-
PROCESSING, CHEMICALS	559	3	.1	3	-	-

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 262G

Table 13 OCCUPATIONS OF THE INSURED UNEMPLOYED
LOWELL CETA

		ALL AGES NUMBER	PER.	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL
TOTAL		2478	100.0	1535	942	-
MACHINING & RELATED	600	10	.4	3	7	-
TOOLMAKING & RELATED	601	3	.1	3	-	-
MILLING & PLANING	605	3	.1	-	3	-
BORING	606	3	.1	3	-	-
SAWING	607	3	.1	-	3	-
METAL MACHINING NEC	609	40	1.6	23	17	-
FABRICATING MACHINE	616	13	.5	10	3	-
MISC METALWORKING	619	13	.5	13	-	-
MOTORIZ VEHICLE&ENG.	620	27	1.1	20	7	-
AIRCRAFT REPAIRING	621	7	.3	3	3	-
CARD, COMB, DRAW, RELA	680	3	.1	-	3	-
DPINNINH	682	3	.1	-	3	-
WEAVING & RELATED	683	13	.5	7	7	-
REXILE MACHINE WORK	689	3	.1	3	-	-
PLASTICS, SYNTHETICS,	690	27	1.1	3	23	-
MISC. MACHINE WORK	699	7	.3	3	3	-
FAB/ASBL&REPR METAL	700	3	.1	3	-	-
METAL UNIT ASBL& ADJ	706	3	.1	3	-	-
FAB/ASBL&REPR METAL	709	10	.4	-	10	-
COMMUNICATION EQUIP	722	3	.1	3	-	-
ELECTRICAL APPLI&FIX	723	33	1.3	13	20	-
LITE BULBS&ELECTRONI	725	3	.1	3	-	-
ELECTRONIC COMPONENT	726	47	1.9	40	7	-
STORAGE BATTERY	727	7	.3	7	-	-

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 262H

Table 13 OCCUPATIONS OF THE INSURED UNEMPLOYED
LOWELL CETA

		ALL AGES NUMBER	PER.	UNDER 45 YRS.	OVER 45 YRS.	NOT AVAIL
TOTAL		2478	100.0	1535	942	-
UPHOLSTER, MATTRESS	780	10	.4	3	7	-
LAY OUT, MARK, CUT, PUN	781	23	.9	10	13	-
HANDSEW, MEND, EMBROID	782	3	.1	-	3	-
FUR WORKING	783	3	.1	-	3	-
MACH SEW, NONGARMENT	787	33	1.3	3	30	-
FOOTWEAR	788	10	.4	3	7	-
FITT, BOLT, SCREW, RELA	801	7	.3	7	-	-
BOILERMAKING & RELAT	805	3	.1	3	-	-
TRANSP EQUIP ASSEMBL	806	7	.3	3	3	-
BODY WORK, TRANSP EQ	807	3	.1	3	-	-
MISC METAL FABRICAT	809	7	.3	7	-	-
LIGHT EQUIP&BUILD	824	20	.8	17	3	-
ASSMBLY, INSTALL, REPR	829	3	.1	-	3	-
EXCAVAT, GRADNG&RELAT	850	10	.4	-	10	-
EXCAV, GRAD, PAVING	859	7	.3	7	-	-
CARPENTRY & RELATED	860	70	2.8	30	40	-
BRICK&STONE MASONRY	861	7	.3	3	3	-
PLUMBING, GAS FITT	862	7	.3	7	-	-
FLOOR LAYING&FINISH	864	3	.1	3	-	-
MISC CONSTRUCTION	869	77	3.3	57	20	-
HEAVY TRUCK DRIV	905	47	1.9	40	7	-
LIGHT TRUCK DRIVING	906	10	.4	10	-	-
PACKAGING	920	7	.3	3	3	-
HOISTING & CONVEYING	921	33	1.3	23	10	-
MATERIAL MOVING&STOR	922	7	.3	7	-	-
PACK/MATERIALS HANDL	929	43	1.7	30	13	-

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 362

Table 13 AGE AND AVERAGE WEEKLY EARNINGS OF THE INSURED UNEMPLOYED
LOWELL CETA

	TOTAL		MALES		FEMALES	
	NUMBER	PER.	NUMBER	PER.	NUMBER	PER.
TOTAL	2478	100.0	1072	100.0	1405	100.0
AGE GROUPS						
TOTAL	2478	100.0	1072	100.0	1405	100.0
UNDER 20	-	-	-	-	-	-
UNDER 25	396	16.0	243	22.7	153	10.9
25 - 34	633	25.5	273	25.5	360	25.6
35 - 44	506	20.4	157	14.6	350	24.9
45 - 54	463	18.7	167	15.6	296	21.1
55 - 64	343	13.8	143	13.3	200	14.2
65 & OVER	137	5.5	90	8.4	47	3.3
WEEKLY EARN.						
TOTAL	2464	99.4	1062	99.1	1402	99.8
UNDER \$100	573	23.1	80	7.5	493	35.1
\$100-\$149	586	23.6	196	18.3	390	27.8
\$150-\$199	556	22.4	276	25.7	280	19.9
\$200-\$249	280	11.3	157	14.6	123	8.8
\$250-\$299	180	7.3	107	10.0	73	5.2
\$300 +	290	11.7	246	22.9	43	3.1

COMMONWEALTH OF MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

TABLE 562

Table 13 DURATION MOST RECENT SPELL (ALL PROGRAMS)
LOWELL CETA

	TOTAL	0-4 WEEKS	5-14 WEEKS	15-26 WEEKS	27+ WEEKS
TOTAL	2478	613	1335	443	87
OCCUPATION					
PROF, TECH, MGT	383	90	210	77	7
CLERICAL/SALES	576	113	316	123	23
SERVICES	216	47	133	30	7
FARM, FISH, FURS	13	3	-	10	-
PROCESSING	37	7	13	10	7
MACHINE TRADES	220	70	100	37	13
BENCH WORK	250	127	77	43	3
STRUCTURAL	283	87	117	60	20
MISC. WORK	496	70	370	50	7
I.N.A.	3	-	-	3	-
INDUSTRY ATTACH.					
MANUFACTURING	616	190	250	140	37
CONSTRUCTION	160	57	57	37	10
TRANS/UTIL	310	40	256	13	-
WHOL/RET/TRADE	346	73	203	57	13
FIN/INS/R.E.	77	30	17	23	7
SERVICES	433	110	230	83	10
GOVERNMENTS	503	107	296	90	10
OTHERS	3	-	3	-	-
I.N.A.	30	7	23	-	-
MALES	1072	256	523	250	43
UNDER 20	-	-	-	-	-
UNDER 25	243	40	130	67	7
25 - 34	273	83	113	70	7
35 - 44	157	33	63	53	7
45 - 54	167	40	93	27	7
55 - 64	143	40	77	20	7
65 & OVER	90	20	47	13	10
FEMALES	1405	356	813	193	43
UNDER 20	-	-	-	-	-
UNDER 25	153	30	70	40	13
25 - 34	360	90	183	73	13
35 - 44	350	80	253	17	-
45 - 54	296	77	193	23	3
55 - 64	200	53	97	37	13
65 & OVER	47	27	17	3	-

VI. Labor Supply/Demand Imbalances

Information regarding labor supply and demand is available through analysis of Job Matching Activities and ESARS tables. From this system we are able to obtain on a monthly basis an occupational breakdown of openings along with some wage data concerning these openings.

Job Matching is a computerized system available throughout Massachusetts to match people with jobs and jobs with people. This sophisticated program serves the needs of a highly mobile workforce by matching requests of both employers and workers against all appropriate files and not just those in local offices. The Employment Service Automated Reporting System (ESARS), which is the computerized information gathering service for applicants, can be considered to be the supply side of the occupational job market. Although analysis of this data is useful when studying labor market conditions, certain limitations of the data should be noted. Both Job Matching and ESARS give information on only those openings and applicants that come into the Job Service Offices, thus reflecting only a portion of the market.

As of April 30, 4,213 active job applications were on file in the Lowell Job Matching Service Office. Of the applicants, some 2,127 (50.4 percent) were female, 437 (10.3 percent) belonged to a minority group and 2,074 (49.2 percent) were described as being economically disadvantaged. The age cohorts of the active applicants were: 16.6 percent under 22, 65.0 percent 22 to 44, and 17.6 percent 45 years or older, 18 percent of the applicants were veterans.

The largest group of applicants (19.0 percent) were seeking clerical and sales jobs; 670 (16.0 percent) were in service occupations, followed closely by structural work 596 (14.3 percent) and benchwork 525 (12.6 percent). These four groups accounted for almost two-thirds of all applicants.

There were 2,357 openings for nonagricultural jobs in the Lowell LMA listed with the Job service between October 1979 and April 30, 1980. Some 1,101 (46.7 percent) were filled and 740 (39.8 percent) remained open. The ratio of active applicants to unfilled job openings was 4.4 to 1.

The average wages of the unfilled job openings were comparable to those in which applicants were placed. Nearly three-quarters of the unfilled openings remained unfilled 30 days or longer, a reflection of the tightness in the Lowell LMA's Job Market.

An examination of occupations with a low ratio of applicants to unfilled job orders reveals two situations where jobs are particularly hard to fill. First are those occupations such as kitchen worker, security guard, laundry worker, and garment worker. These jobs are in industries characterized as being in a secondary labor market. The industries are highly competitive, have high labor turnover and a high ratio of labor cost to total cost. These occupations have comparatively low wages and limited upgrading possibilities. Usually these openings are attractive to individuals entering the labor market. The second group of jobs with a particularly low ratio of applicants to openings was found in assembly and repair of electronic components and electrical equipment as well as structural work occupations in the fabrication, installation and repair of electrical and electronics products. The difficulty in filling these openings is due to supply/demand imbalances caused by rapid expansion in the high technology area. This highlights one of the strongest demands in the labor area.

Table 14 Applicants Registered
Lowell Employment Office
March 31, 1980

Characteristics Of Applicants	Active File End Of Period
<u>Age - All Ages</u>	4,476
Under 20 years	380
20 - 21	311
22 - 24	465
25 - 29	772
30 - 39	1,274
40 - 44	419
45 - 54	580
55 - 64	239
65 years or older	36
<u>Sex</u>	
Men	2,202
Women	2,274
<u>Highest Grade of School Completed</u>	
0 - 7	294
8 - 11	1,650
12	1,801
Over 12 years	731
Handicapped	380
Welfare	1,846
<u>Ethnic Group</u>	
White (not Hispanic)	4,045
Black (not Hispanic)	74
Hispanic	340
Economically Disadvantaged	2,108
Vietnam ERA Veteran	311

Source: ESARS, Table 06, March 1980

Table 15 --ES JOB BANK OPENINGS IN REPORTING DISTRICTS
BY OCCUPATIONAL CATEGORY
LOWELL MASSACHUSETTS
MAR 1980

OCCUPATIONAL CATEGORY	OPENINGS AVAILABLE		AVERAGE PAY		TOTAL		OPENINGS UNFILLED AT MONTH END		UNFILLED 30 DAYS OR MORE
	CURRENT	LAST MONTH	CURRENT	LAST MONTH	CURRENT	LAST MONTH	CURRENT	LAST MONTH	
TOTAL, ALL OCCUPATIONS	586	498	\$ 8,585/YR*	\$ 9,031/YR*	338	333	151	174	
PROFESSIONAL, TECHNICAL AND MANAGERIAL	15	25	12,090/YR*	13,828/YR*	8	18	5	12	
CLERICAL AND SALES	98	93	8,398/YR*	8,745/YR*	64	62	17	37	
SERVICE	69	58	3.74/HR*	3.80/HR*	44	37	12	12	
FARMING, FISHERY, FORESTRY, AND RELATED	3	INA	5.21/HR*	INA	3	INA	INA	INA	
PROCESSING	24	13	4.32/HR*	4.27/HR*	12	9	4	6	
MACHINE TRADES	102	76	4.43/HR*	4.76/HR*	50	52	16	45	
BENCH WORK	89	92	3.78/HR*	3.99/HR*	54	74	41	38	
STRUCTURAL WORK	113	77	4.49/HR*	4.77/HR*	60	44	23	23	
MISCELLANEOUS	73	64	3.57/HR*	3.65/HR*	43	49	33	1	

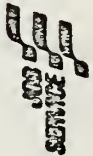


Table 16

--TOTAL ES JOB BANK OPENINGS AND AVERAGE PAY
BY OCCUPATIONAL CATEGORY, DIVISION AND JOB TITLE
LOWELL MAR 1980

PAGE 1

JOB TITLE	OPENINGS AVAILABLE TOTAL	AVERAGE PAY	OPENINGS UNFILLED TOTAL	AVERAGE PAY	OPENINGS UNFILLED 30 DAYS TOTAL	AVERAGE PAY
TOTAL, ALL OCCUPATIONS	586	\$ 8,585	338	\$ 8,474	151	\$ 8,266
0 & 1 PROFESSIONAL, TECHNICAL AND MANAGERIAL	15	12,090	8	13,198	5	12,217
003 ELECTRICAL AND ELECTRONICS ENGINEERING	2	11,050	1	11,700	1	11,700
01 ARCHITECTURE AND ENGINEERING	2	13,660	0	0	0	0
012 INDUSTRIAL ENGINEERING	1	19,000	0	0	0	0
017 DRAFTING AND RELATED WORK	1	8,320	0	0	0	0
07 MEDICINE AND HEALTH	2	16,250	2	16,250	0	0
078 MEDICAL AND DENTAL TECHNOLOGY	1	9,500	1	9,500	0	0
079 MEDICINE AND HEALTH, N.E.C.	1	23,000	1	23,000	0	0
09 EDUCATION	3	11,635	2	12,452	2	12,452
090 COLLEGE AND UNIVERSITY EDUCATION	1	17,000	1	17,000	1	17,000
092 PRIMARY SCHOOL AND KINDERGARTEN EDUC.	2	8,952	1	7,904	1	7,904
13 WRITING	1	12,000	1	12,000	0	0
131 WRITERS	1	12,000	1	12,000	0	0
16 ADMINISTRATIVE SPECIALIZATIONS	2	9,663	1	12,480	1	12,480
166 PERSONNEL AND TRAINING ADMINIS.	1	6,845	0	0	0	0
169 ADMINISTRATIVE SPECIALTIES, N.E.C.	1	12,480	1	12,480	1	12,480
18 MANAGERS AND OFFICIALS, N.E.C.	3	11,068	1	12,000	1	12,000
184 TRANS. COMM., AND UTILITIES MANAG.	1	11,700	0	0	0	0
185 WHOLESALE AND RETAIL TRADE MANAGEMENT	1	12,000	1	12,000	1	12,000

Table 17-TOTAL ES JOB BANK OPENINGS AND AVERAGE PAY
BY OCCUPATIONAL CATEGORY, DIVISION AND JOB TITLE
LOVELL MAR 1980

PAGE 2

JOB TITLE	OPENINGS AVAILABLE		OPENINGS UNFILLED		OPENINGS UNFILLED 30 DAYS	
	TOTAL	AVERAGE PAY	TOTAL	AVERAGE PAY	TOTAL	AVERAGE PAY
189 MISC. MANAGERS AND OFFICIALS N.E.C.	1	\$ 9,505	0	\$ 0	0	\$ 0
2 CLERICAL AND SALES	98	8,398	64	8,596	17	8,562
20 STENOGRAPHY, TYPING, FILING, AND RELATED	48	7,939	36	7,672	6	7,856
201 SECRETARIES	7	10,029	3	10,227	0	0
203 TYPISTS & TYPEWRITERS	10	8,593	5	8,648	3	8,953
205 MACHINE OPERATORS	25	7,280	25	7,280	0	0
206 FILE CLERKS	2	6,760	2	6,760	2	6,760
209 STENOGRAPHY, TYPING, FILING & REL WRK NEC	4	7,358	1	6,760	1	6,760
21 COMPUTING AND ACCOUNT-RECORDING	15	7,408	5	7,405	1	6,448
210 BOOKKEEPERS & BOOK-KEEPING MACHINE OPS.	5	8,268	2	8,840	0	0
211 CASHIERS AND TELLERS	4	6,656	3	6,448	1	6,448
219 COMPUTING AND ACCOUNT RECORDING	6	7,193	0	0	0	0
22 PRODUCTION AND STOCK CLERKS	10	7,756	6	7,918	3	8,320
221 PRODUCTION CLERKS	1	7,800	0	0	0	0
222 SHIPPING, RECEIVING, AND STOCK CLERKS	7	8,124	6	7,918	3	8,320
229 PRODUCTION AND STOCK CLERKS, N.E.C.	2	6,448	0	0	0	0
23 INFORMATION AND MESSAGE DISTRIBUTION	11	9,072	7	9,665	5	10,760
230 HAND DELIVERY AND DISTRIBUTION	1	7,098	1	7,098	0	0
235 TELEPHONE OPERATORS	5	8,112	5	8,112	4	8,450
237 INFORMATION AND RECEPTION CLERKS	4	8,034	0	0	0	0
239 INFO. AND MESSAGE DISTRIBUTION, N.E.C.	1	20,000	1	20,000	1	20,000
25 SALES OCCUPATIONS, SERVICES	6	15,600	6	15,600	0	0

Table 17 TOTAL ES JOB BANK OPENINGS AND AVERAGE PAY
BY OCCUPATIONAL CATEGORY, DIVISION AND JOB TITLE
LOWELL MAR 1980

PAGE 3

JOB TITLE	OPENINGS AVAILABLE TOTAL	AVERAGE PAY	OPENINGS UNFILLED TOTAL	AVERAGE PAY	OPENINGS UNFILLED 30 DAYS TOTAL	AVERAGE PAY
250 SALES OCCS. REAL ESTATE & INSURANCE	6	\$ 15,600	6	\$ 15,600	0	\$ 0
26 SALESPERSON, CONSUM- ABLE COMMODITIES	3	6,448	1	6,448	1	6,448
261 SALESWORK TEXTILE PR OD, APPAREL & NOTIONS	3	6,448	1	6,448	1	6,448
27 SALESPERSONS, COMMODITIES, N.E.C.	1	8,320	1	8,320	0	0
279 SALES OCCS., MISC. COMMODITIES, N.E.C.	1	8,320	1	8,320	0	0
29 MISCELLANEOUS SALES OCCUPATIONS	4	8,034	2	6,708	1	6,760
290 SALES CLERKS	2	7,488	1	6,656	0	0
292 ROUTE SALES AND DELIVERY	1	10,400	0	0	0	0
299 MISC. SALES OCCUPATIONS, N.E.C.	1	6,760	1	6,760	1	6,760
3 SERVICE	69	3,74	44	3,64	12	3,61
30 DOMESTIC SERVICE	6	4.25	6	4.25	1	4.25
301 HOUSEHOLD AND RELATED WORK	5	0	5	0	0	0
305 DOMESTIC COOKS	1	4.25	1	4.25	1	4.25
31 FOOD & BEVERAGE PREP ARATION & SVC. OCCS.	13	3.84	12	3.90	3	3.79
313 CHEFS AND COOKS, HOTELS & RESTAURANTS	6	3.75	5	3.87	3	3.79
315 MISCELLANEOUS COOKS, EXCEPT DOMESTIC	1	4.90	1	4.90	0	0
318 KITCHEN WORKERS, N.E.C.	6	3.75	6	3.75	0	0
35 MISC. PERSONAL SERVICE OCCUPATIONS:	7	3.34	7	3.34	3	3.20
355 ATEN.WORK HOSPITALS MORG.AND REL.HEALT.S	7	3.34	7	3.34	3	3.20
36 APPAREL/FURNISHINGS SERVICE OCCUPATIONS	12	3.62	11	3.54	0	0
361 LAUNDERING SERVICE	11	3.54	11	3.54	0	0

Table 17

--TOTAL ES JOB BANK OPENINGS AND AVERAGE PAY
BY OCCUPATIONAL CATEGORY, DIVISION AND JOB TITLE
LOWELL MAR 1980

PAGE 4

JOB TITLE	OPENINGS AVAILABLE		OPENINGS UNFILLED		OPENINGS UNFILLED 30 DAYS	
	TOTAL	AVERAGE PAY	TOTAL	AVERAGE PAY	TOTAL	AVERAGE PAY
362 DRY CLEANING SERVICE	1	\$ 4.50	0	\$ 0	0	\$ 0
37 PROTECTIVE SERVICE						
372 SEC.GRDS/CORR.OFFICE	14	3.97	2	4.10	2	4.10
RS EXC.CROSS.TENDERS	14	3.97	2	4.10	2	4.10
38 BUILDING AND RELATED						
SERVICE OCCUPATIONS	17	3.71	6	3.44	3	3.30
381 PORTERS AND CLEANERS	10	3.88	2	3.41	2	3.41
382 JANITORS	5	3.82	2	3.80	1	3.10
389 BUILDING & REL. SVC.						
OCCUPATIONS, N.E.C.	2	3.10	2	3.10	0	0
4 FARMING, FISHERY,						
FORESTRY, AND						
RELATED	3	5.21	3	5.21	0	0
40 PLANT FARMING OCCUPA						
TIONS	3	5.21	3	5.21	0	0
408 PLANT LIFE AND REL.						
SVC. OCCUPATIONS	3	5.21	3	5.21	0	0
5 PROCESSING						
50 PROCESSING OF METAL	24	4.32	12	4.60	4	4.13
500 ELECTROPLATING	1	3.50	0	0	0	0
55 CHEM, PLASTICS SYNTH						
RUBBER, PAINT PROCESS	8	4.82	3	5.18	1	4.25
556 CASTING AND HOLDING						
OCCUPATIONS, N.E.C.	1	5.00	0	0	0	0
557 EXTRUDING	4	4.25	1	4.25	1	4.25
559 PROCESSING OF CHEMIC						
ALS & REL. PROD., NEC	3	5.52	2	5.65	0	0
58 PROCESSING LEATHER						
TEXTILES & REL. PR.	13	4.15	8	4.42	2	4.00
582 WASHING, STEAMING						
AND SATURATING	5	4.82	5	4.82	0	0
583 IRONING, PRESS. GLAZ.						
STAK. CALEN. EMOSS.	4	3.44	2	3.63	1	4.00
584 MERCERIZING, COATING,						
AND LAMINATING	3	4.00	1	4.00	1	4.00
589 LEATHER, TEXTILES & R						
EL.PROD.PROCESS., NEC	1	4.05	0	0	0	0

Table 17
 ---TOTAL ES JOB BANK OPENINGS AND AVERAGE PAY
 *BY OCCUPATIONAL CATEGORY, DIVISION AND JOB TITLE
 LOWELL MAR 1980

JOB TITLE	OPENINGS AVAILABLE	OPENINGS UNFILLED	OPENINGS UNFILLED 30 DAYS
TOTAL	AVERAGE PAY	TOTAL	AVERAGE PAY
59 PROCESSING OCCUPATIONS, N.E.C.	2	1	\$ 4.25
590 PROCESSING PRODUCTS FROM ASST. MATERIALS	2	1	4.25
6 MACHINE TRADES	102	50	4.15
60 METAL MACHINING OCCUPATIONS	38	9	5.23
600 MACHINISTS AND RELATED OCCUPATIONS	4	2	8.00
603 ABRADING	1	1	4.00
606 BORING	2	0	3.63
609 METAL MACHINING OCCUPATION, N.E.C.	31	6	5.00
61 METALWORKING OCCUPATION, N.E.C.	6	3	4.06
616 FABRICATING MACHINE WORK	1	0	4.37
619 MISC. METALWORKING OCCUPATIONS, N.E.C.	5	3	4.00
62 MECHANICS AND MACHINERY REPAIRERS	3	2	4.80
620 MTR. VEHICLE & ENGIN EER. EQUIP. MECHANICS	2	2	4.20
625 ENGINE, POWER TRANS., AND REL. MECHANICS	1	0	6.00
65 PRINTING OCCUPATIONS	1	0	3.10
652 PRINTING MACHINE WORK	1	0	3.10
68 TEXTILE OCCUPATIONS	44	27	4.04
681 TWISTING, BEAMING, WARPING, AND REL. WORK	17	13	3.56
683 WEAVING, AND RELATED WORK	10	10	4.45
686 PUNCHING, CUTTING, FORMING, AND REL. WORK	1	0	3.66
689 TEXTILE OCCUPATIONS, N.E.C.	16	4	4.32
69 MACHINE TRADES OCCU- PATIONS, N.E.C.	10	9	3.59
			3.64
		8	3.59

Table 17 --TOTAL ES JOB BANK OPENINGS AND AVERAGE PAY
BY OCCUPATIONAL CATEGORY, DIVISION AND JOB TITLE
LOWELL MAR 1980

JOB TITLE	OPENINGS AVAILABLE TOTAL	AVERAGE PAY	OPENINGS UNFILLED TOTAL	AVERAGE PAY	OPENINGS UNFILLED 30 DAYS TOTAL	AVERAGE PAY
690 PLASTIC, SYN. RUBBER & LEATHER WORK, OCCS.	6	\$ 3.10	5	\$ 3.10	5	\$ 3.10
691 FABRICATION OF INSULATION WIRE & CABLE	3	4.67	3	4.67	2	5.00
699 MISC. MACHINE WORK OCCUPATIONS, N.E.C.	1	3.25	1	3.25	1	3.25
7 BENCH WORK	89	3.78	54	3.89	41	3.95
70 METAL PROD. FAB. ASSEMBLY & REPAIR, NEC	1	4.00	0	0	0	0
705 FILING, GRINDING, BUFFING, CLEANING & POL. OCCS.	1	4.00	0	0	0	0
71 FAB/REP SCIENT. MED PHOTO, OPT, HOR, REL. P6	5	4.01	4	4.07	0	0
710 FAB. REP. INS. FOR MEAS CON. & IND. PHY CHAR	4	3.75	3	3.75	0	0
714 FAB. & REPAIR OF PHOTO. EQUIP & SUPP	1	5.04	1	5.04	0	0
72 ASSEMBLY AND REPAIR OF ELECTRICAL EQUIP.	63	3.77	33	3.92	28	3.98
724 COILS, MAGNETS, ARMAT	11	4.26	10	4.35	10	4.35
726 ASSEM. & REP. OF ELE C. COMPON. & ACC. NEC	46	3.65	23	3.73	18	3.77
728 OCCS. IN FABRICATION OF ELEC. WIRE & CABLE	6	3.83	0	0	0	0
74 PAINTING, DECORATING AND RELATED OCCS.	2	6.00	2	6.00	2	6.00
741 SPRAY PAINTING	2	6.00	2	6.00	2	6.00
75 PLASTICS, SYN. RUBBER & REL. PROD. FAB/REP	1	4.00	0	0	0	0
754 FAB. AND REP. OF MISC. PLASTICS PRODUCTS	1	4.00	0	0	0	0
76 OCCS. IN FAB/REPAIR OF WOOD PRODUCTS	2	3.75	1	4.00	0	0
761 LAY. OUT, CUT, CARV, SNA P, SAND, WOOD PRD, NEC	1	3.50	0	0	0	0
763 FABRICATION & REPAIR OF FURNITURE, N.E.C.	1	4.00	1	4.00	0	0

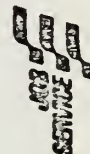


Table 17-TOTAL ES JOB BANK OPENINGS AND AVERAGE PAY
BY OCCUPATIONAL CATEGORY, DIVISION AND JOB TITLE
LOWELL MAR 1980

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JOB TITLE	OPENINGS AVAILABLE TOTAL	AVERAGE PAY	OPENINGS UNFILLED TOTAL	AVERAGE PAY	OPENINGS UNFILLED 30 DAYS TOTAL	AVERAGE PAY
78 FAB/REP OF TEXTILE LEATHER & REL. PROD. 781 LAY. OUT, MARK., CUT. & PUNCH, OCCS., NEC	15	\$ 3.44	14	\$ 3.46	11	\$ 3.52
782 HANDSEWING, MENDING EMBROID. & KNIT, NEC	4	3.21	3	3.25	3	3.25
787 MACHINE SEWING OPER- ATORS, NONGARMENT	2	4.15	2	4.15	2	4.15
788 OCCS. IN FABRICATION & REPAIR OF FOOTWEAR	3	3.25	3	3.25	0	0
	6	3.45	6	3.45	6	3.45
8 STRUCTURAL WORK	113	4.49	60	4.28	23	4.16
80 OCCUPATIONS IN METAL FABRICTION, N.E.C. 804 TINSMTHS, COPPERSMIT HSRSH. MTL. WORKERS	10	4.55	2	8.00	0	0
807 BODY WORK, TRANSPORT. EQUIPMENT	8	3.69	0	0	0	0
	2	8.00	2	8.00	0	0
81 WELDERS, CUTTERS AND RELATED OCCUPATIONS 810 ARC WELDERS AND CUTTERS	14	3.71	12	3.65	8	3.73
813 BRAZING, BRAZE WELD- ING & SOLDERING OCCS	7	4.07	6	3.96	2	4.88
	7	3.35	6	3.35	6	3.35
82 ELECTRICAL ASSEMB. INST. AND REPAIRING 822 WIRE COM.DET. SIG.EQU ASSEM. INSTAL. AND REP	23	5.23	16	4.54	14	4.29
824 LIGHT.EQU. & BLD.WIR ASSEM. INST. REF. NEC	3	4.37	3	4.37	3	4.37
828 ELEC. & ELEC. PROD. FAB. INSTAL. REP. NEC	7	7.24	1	7.00	1	7.00
829 INSTAL. REP. OF ELECTR ICAL PRODUCTS, N.E.C.	12	4.38	12	4.38	10	4.00
	1	4.00	0	0	0	0
84 PAINTING, PLASTERING WATERPT. CEMENTING 844 CEMENT AND CONCRETE FINISHING & RELATED	1	6.00	1	6.00	0	0
	1	6.00	1	6.00	0	0
86 CONSTRUCTION OCCUPATIONS, N.E.C.	61	4.37	27	4.04	0	0

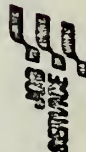


Table 17-TOTAL ES JOB BANK OPENINGS AND AVERAGE PAY
BY OCCUPATIONAL CATEGORY, DIVISION AND JOB TITLE
LOWELL MAR 1980

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JOB TITLE	OPENINGS AVAILABLE		OPENINGS UNFILLED		OPENINGS UNFILLED 30 DAYS	
	TOTAL	AVERAGE PAY	TOTAL	AVERAGE PAY	TOTAL	AVERAGE PAY
860 CARPENTRY AND RELATED WORK	5	\$ 6.47	0	\$ 0	0	\$ 0
864 FLOOR LAYING AND FINISHING WORK	4	6.25	0	0	0	0
869 MISCELLANEOUS CONST- RUCTION WORK, N.E.C.	52	4.02	27	4.04	0	0
89 STRUCTURAL WORK OCCU- PATIONS, N.E.C.	4	4.22	2	4.78	1	5.81
899 MISC. STRUCTURAL WORK OCCS., N.E.C.	4	4.22	2	4.78	1	5.81
9 MISCELLANEOUS	73	3.57	43	3.57	33	3.49
90 MOTOR FREIGHT OCCUPATIONS	2	3.68	1	4.25	0	0
905 HEAVY TRUCK DRIVING	1	3.10	0	0	0	0
906 LIGHT TRUCK DRIVING	1	4.25	1	4.25	0	0
91 TRANSPORTATION OCCUPATIONS, N.E.C.	4	3.38	4	3.38	4	3.38
915 PARKING LOT & AUTO- SERVICE FACILITIES	4	3.38	4	3.38	4	3.38
92 PACKAGING/MATERIALS HANDLING OCCUPATIONS	63	3.59	34	3.58	29	3.51
920 PACKAGING OCCUPATIONS	50	3.50	28	3.51	28	3.51
922 MATERIALS MOVING AND STORING OCCS., N.E.C.	3	4.00	0	0	0	0
929 PACKAGING/MATERIALS HANDLING OCCS., N.E.C.	10	3.88	6	3.92	1	3.50
97 GRAPHIC ART WORK OCCUPATIONS	4	3.50	4	3.50	0	0
979 GRAPHIC ART WORK OCCUPATIONS, N.E.C.	4	3.50	4	3.50	0	0

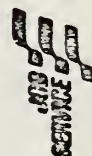


Table 18-es JOB BANK OPENINGS IN REPORTING DISTRICTS
BY OCCUPATIONAL CATEGORY, DIVISION AND GROUP
LOWELL MAR 1980

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JOB TITLE	OPENINGS AVAILABLE	TOTAL	DISTRIB	OPENINGS UNFILLED	AS A % OF UNFILLED	OPENINGS AVAILABLE	TOTAL	OPENINGS UNFILLED	TOTAL	30 DAYS OR MORE	30 DAYS OR MORE
TOTAL, ALL OCCUPATIONS	586	100.0000X	338	151	44.67X	498	345	174			
0 & 1 PROFESSIONAL, TECHNICAL, AND MANAGERIAL	15	2.5597X	8	5	62.50X	25	18	12			
003 ELECTRICAL AND ELECTRONICS ENGINEERING	2	.3413X	1	1	100.00X	2	2	1			
005 CIVIL ENGINEERING	0	.0000X	0	0	.00	1	1	1			
007 MECHANICAL ENGINEERING	0	.0000X	0	0	.00	1	1	1			
008 CHEMICAL ENGINEERING	0	.0000X	0	0	.00	1	1	1			
01 ARCHITECTURE AND ENGINEERING	2	.3413X	0	0	.00	4	1	0			
012 INDUSTRIAL ENGINEERING	1	.1706X	0	0	.00	2	1	0			
015 NUCLEAR ENGINEERING	0	.0000X	0	0	.00	2	0	0			
017 DRAFTING AND RELATED WORK	1	.1706X	0	0	.00	0	0	0			
02 MATHEMATICS AND PHYSICAL SCIENCES	0	.0000X	0	0	.00	3	2	2			
020 MATHEMATICS	0	.0000X	0	0	.00	2	2	2			
022 CHEMISTRY	0	.0000X	0	0	.00	1	0	0			
07 MEDICINE AND HEALTH	2	.3413X	2	0	.00X	0	0	0			
078 MEDICAL AND DENTAL TECHNOLOGY	1	.1706X	1	0	.00X	0	0	0			
079 MEDICINE AND HEALTH, N.E.C.	1	.1706X	1	0	.00X	0	0	0			
09 EDUCATION	3	.5119X	2	2	100.00X	4	3	1			
090 COLLEGE AND UNIVERSITY EDUCATION	1	.1706X	1	1	100.00X	1	1	0			
092 PRIMARY SCHOOL AND KINDERGARTEN EDUC.	2	.3413X	1	1	100.00X	2	2	1			
099 EDUCATION, N.E.C.	0	.0000X	0	0	.00	1	0	0			
13 WRITING	1	.1706X	1	0	.00X	0	0	0			
131 WRITERS	1	.1706X	1	0	.00X	0	0	0			
16 ADMINISTRATIVE SPECIALIZATIONS	2	.3413X	1	1	100.00X	5	3	2			

Table 18--ES JOB BANK OPENINGS IN REPORTING DISTRICTS
BY OCCUPATIONAL CATEGORY, DIVISION AND GROUP
LOWELL MAR 1980

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JOB TITLE	OPENINGS AVAILABLE	TOTAL	OPENINGS UNFILLED 30 DAYS OR MORE	AS A % OF UNFILLED	OPENINGS AVAILABLE	OPENINGS UNFILLED 30 DAYS OR MORE	TOTAL	OPENINGS UNFILLED 30 DAYS OR MORE	TOTAL	OPENINGS UNFILLED 30 DAYS OR MORE
22 PRODUCTION AND STOCK CLERKS	10	1.7065X	6	50.00X	4	3	4	0	4	0
221 PRODUCTION CLERKS	1	.1706X	0	.00	1	0	1	0	1	0
222 SHIPPING RECEIVING, AND STOCK CLERKS	7	1.1945X	6	50.00X	3	3	3	0	3	0
229 PRODUCTION AND STOCK CLERKS, N.E.C.	2	.3413X	0	.00	0	0	0	0	0	0
23 INFORMATION AND MESSAGE DISTRIBUTION	11	1.8771X	7	71.43X	13	5	8	1	13	1
230 HAND DELIVERY AND DISTRIBUTION	1	.1706X	1	.00X	1	0	0	0	1	0
235 TELEPHONE OPERATORS	5	.8532X	5	80.00X	5	4	4	0	5	0
237 INFORMATION AND RECEPTION CLERKS	4	.6826X	0	.00	6	0	3	1	6	1
239 INFO. AND MESSAGE DISTRIBUTION, N.E.C.	1	.1706X	1	100.00X	1	1	1	0	1	0
24 MISCELLANEOUS CLERICAL	0	.0000X	0	.00	1	0	0	0	1	0
241 INVESTIGATORS AND ADJUSTERS	0	.0000X	0	.00	1	0	0	0	1	0
25 SALES OCCUPATIONS, SERVICES	6	1.0239X	6	.00X	0	0	0	0	0	0
250 SALES OCCS., REAL ESTATE & INSURANCE	6	1.0239X	6	.00X	0	0	0	0	0	0
26 SALESPERSON CONSUM- ABLE COMMODITIES	3	.5119X	1	100.00X	3	1	2	0	3	0
261 SALESWORK, TEXTILE PR OD, APPAREL & NOTIONS	3	.5119X	1	100.00X	3	1	2	0	3	0
27 SALESPERSONS, N.E.C. COMMODITIES	1	.1706X	1	.00X	2	0	1	1	2	1
275 SALESWORK-BUS/COMMER CIAL EQUIP./SUPPLIES	0	.0000X	0	.00	1	0	1	1	1	1
279 SALES OCCS., MISC. COMMODITIES, N.E.C.	1	.1706X	1	.00X	1	0	0	0	1	0
29 MISCELLANEOUS SALES OCCUPATIONS	4	.6826X	2	50.00X	4	1	2	0	4	0

Table 18--ES JOB BANK OPENINGS IN REPORTING DISTRICTS
 b. OCCUPATIONAL CATEGORY, DIVISION AND GROUP
 LOWELL MAR 1980

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JOB TITLE	OPENINGS AVAILABLE		OPENINGS UNFILLED		OPENINGS AS A % OF UNFILLED		OPENINGS AVAILABLE		TOTAL		TOTAL		TOTALS FROM A MONTH EARLIER	
	TOTAL	DISTRIB	TOTAL	%	TOTAL	AS A % OF UNFILLED	TOTAL	%	TOTAL	AS A % OF UNFILLED	TOTAL	%	OPENINGS UNFILLED	30 DAYS OR MORE
290 SALES CLERKS	2	.3413%	1		0	.00%	1		58	27.27%	37		1	0
291 VENDING AND DOOR TO DOOR SELLING	0	.0000%	0		0	.00	1		1	16.67%	1		0	0
292 ROUTE SALES AND DELIVERY	1	.1706%	0		0	.00	1		0	.00%	0		0	0
299 MISC. SALES OCCUPATIONS, N.E.C.	1	.1706%	1		1	100.00%	1		1	100.00%	1		1	0
3 SERVICE	69	11.7747%	44		12	27.27%	58		37		12			
30 DOMESTIC SERVICE	6	1.0239%	6		1	16.67%	1		1		0			
301 HOUSEHOLD AND RELATED WORK	5	.8532%	5		0	.00%	0		0		0			
305 DOMESTIC COOKS	1	.1706%	1		1	100.00%	1		1		1			
31 FOOD & BEVERAGE PREP ARATION & SVC. OCCS.	13	2.2184%	12		3	25.00%	10		5		2			
313 CHEFS AND COOKS	6	1.0239%	5		3	60.00%	5		4		1			
315 HOTELS & RESTAURANTS	1	.1706%	1		0	.00%	1		1		1			
318 KITCHEN WORKERS, N.E.C.	6	1.0239%	6		0	.00%	4		0		0			
35 MISC. PERSONAL SERVICE OCCUPATIONS	7	1.1945%	7		3	42.86%	5		3		0			
355 ATTN. WORK HOSPITALS	7	1.1945%	7		3	42.86%	4		3		0			
359 MISC. PERSONAL SERVICE OCCUPATIONS, NEC	0	.0000%	0		0	.00	1		0		0			
36 APPAREL/FURNISHINGS SERVICE OCCUPATIONS	12	2.0478%	11		0	.00%	2		0		0			
361 LAUNDRYING SERVICE	11	1.8771%	11		0	.00%	0		0		0			
362 DRY CLEANING SERVICE	1	.1706%	0		0	.00	2		0		0			
363 PRESSING SERVICE	0	.0000%	0		0	.00	2		0		0			
37 PROTECTIVE SERVICE OCCUPATIONS	14	2.3891%	2		2	100.00%	18		11		4			
372 SEC. GRDS/CORR. OFFICE RS EXC. CROSS. TENDERS	14	2.3891%	2		2	100.00%	18		11		4			
38 BUILDING AND RELATED SERVICE OCCUPATIONS	17	2.9010%	6		3	50.00%	22		17		6			

JOB BANK
 SERVICE
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Table 18 -ES JOB BANK OPENINGS IN REPORTING DISTRICTS
BY OCCUPATIONAL CATEGORY, DIVISION AND GROUP
LOWELL MAR 1980

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JOB TITLE	OPENINGS AVAILABLE				OPENINGS UNFILLED				TOTALS FROM A MONTH EARLIER			
	TOTAL				TOTAL				TOTAL			
	10	1.7065X	5	.8532X	2	2	100.00X	17	16	1	6	0
381 PORTERS AND CLEANERS	5	.8532X	2	.3413X	2	1	50.00X	5	1	1	0	0
382 JANITORS	2	.3413X	2		2	0	.00X	0	0	0	0	0
389 BUILDING & REL. SVC. OCCUPATIONS, N.E.C.	3	.5119X	3		3	0	.00X	0	0	0	0	0
4 FARMING, FISHERY, FORESTRY, AND RELATED	3	.5119X	3		3	0	.00X	0	0	0	0	0
40 PLANT FARMING OCCUPATIONS	3	.5119X	3		3	0	.00X	0	0	0	0	0
408 PLANT LIFE AND REL. SVC. OCCUPATIONS	3	.5119X	3		3	0	.00X	0	0	0	0	0
5 PROCESSING	24	4.0956X	12		12	4	33.33X	13	9	9	6	0
50 PROCESSING OF METAL	1	.1706X	0		0	0	.00	0	0	0	0	0
500 ELECTROPLATING	1	.1706X	0		0	0	.00	0	0	0	0	0
55 CHEM PLASTICS, SYNTH RUBBER, PAINT, PROCESS	8	1.3652X	3		3	1	33.33X	5	3	3	3	0
556 CASTING AND MOLDING OCCUPATIONS, N.E.C.	1	.1706X	0		0	0	.00	0	0	0	0	0
557 EXTRUDING	4	.6826X	1		1	1	100.00X	4	2	2	2	0
559 PROCESSING OF CHEMIC ALS & REL. PROD., NEC	3	.5119X	2		2	0	.00X	1	1	1	1	0
58 PROCESSING LEATHER, TEXTILES & REL. PR.	13	2.2184X	8		8	2	25.00X	5	3	3	1	0
582 WASHING, STEAMING AND SATURATING	5	.8532X	5		5	0	.00X	0	0	0	0	0
583 IRONING, PRESS, GLAZ., STAK, CALEN., EMBOSS.,	4	.6826X	2		2	1	50.00X	1	1	1	0	0
584 MERCERIZING, COATING, AND LAMINATING	3	.5119X	1		1	1	100.00X	3	1	1	0	0
589 LEATHER, TEXTILES & R EL. PROD., PROCESS., NEC	1	.1706X	0		0	0	.00	1	1	1	1	0
59 PROCESSING OCCUPATIONS, N.E.C.	2	.3413X	1		1	1	100.00X	3	3	3	2	0
590 PROCESSING PRODUCTS FROM ASST. MATERIALS	2	.3413X	1		1	1	100.00X	1	1	1	0	0

Table 18-ES JOB BANK OPENINGS IN REPORTING DISTRICTS
 DIVISION AND GROUP
 LOWELL MAR 1980

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JOB TITLE	OPENINGS AVAILABLE	TOTAL	OPENINGS UNFILLED 30 DAYS OR MORE	OPENINGS UNFILLED 30 DAYS OR MORE AS A % OF UNFILLED	OPENINGS AVAILABLE	TOTAL	OPENINGS UNFILLED 30 DAYS OR MORE	OPENINGS UNFILLED 30 DAYS OR MORE AS A % OF UNFILLED	TOTAL	OPENINGS UNFILLED 30 DAYS OR MORE
599 MISCELLANEOUS PROCESSING, N.E.C.	0	102	0	.00	2	2	0	.00	2	2
6 MACHINE TRADES	102	102	50	32.00	76	52	16	32.00	45	45
60 METAL MACHINING OCCUPATIONS	38	38	9	22.22	32	22	2	22.22	18	18
600 MACHINISTS AND RELATED OCCUPATIONS	4	4	2	100.00	8	6	2	100.00	2	2
603 ABRADING	1	1	1	.00	0	0	0	.00	0	0
606 BORING	2	2	0	.00	0	0	0	.00	0	0
609 METAL MACHINING OCCUPATION, N.E.C.	31	31	6	.00	24	16	0	.00	16	16
61 METALWORKING OCCUPATION, N.E.C.	6	6	3	.00	8	3	0	.00	3	3
613 SHEET AND BAR ROLLING	0	0	0	.00	3	0	0	.00	0	0
616 FABRICATING MACHINE WORK	1	1	0	.00	1	1	0	.00	1	1
617 FORMING OCCUPATIONS, N.E.C.	0	0	0	.00	2	1	0	.00	1	1
619 MISC. METALWORKING OCCUPATIONS, N.E.C.	5	5	3	.00	2	1	0	.00	1	1
62 MECHANICS AND MACHINERY REPAIRERS	3	3	2	100.00	5	2	2	100.00	1	1
620 MTR. VEHICLE & ENGINEER. EQUIP. MECHANICS	2	2	2	100.00	4	2	2	100.00	1	1
625 ENGINE POWER TRANS. AND REL. MECHANICS	1	1	0	.00	1	0	0	.00	0	0
63 MECHANICS AND MACHINERY REPAIRERS	0	0	0	.00	3	1	0	.00	1	1
638 MISC. MACHINE INSTALLATION & REPAIR OCCS.	0	0	0	.00	3	1	0	.00	1	1
64 PAPERWORKING OCCUPATIONS	0	0	0	.00	1	0	0	.00	0	0
649 PAPERWORKING OCCUPATIONS, N.E.C.	0	0	0	.00	1	0	0	.00	0	0
65 PRINTING OCCUPATIONS	1	1	0	.00	0	0	0	.00	0	0

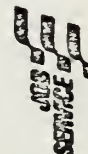


Table 18s

MAR 1980

JOB TITLE	OPENINGS AVAILABLE		TOTAL	OPENINGS UNFILLED		TOTAL	AS A % OF UNFILLED	OPENINGS AVAILABLE	TOTALS FROM A MONTH EARLIER		
	TOTAL	DISTRIB		TOTAL	30 DAYS OR MORE				TOTAL	OPENINGS UNFILLED	30 DAYS OR MORE
652 PRINTING MACHINE WORK	1	.1706X	0	0	.00	0	0	0	0		
68 TEXTILE OCCUPATIONS	44	7.5085X	27	4	14.81X	18	15	15	15		
680 CARDING, COMBING DRAWING, AND REL.WORK	0	.0000X	0	0	.00	2	0	0	0		
681 TWISTING, BEAMING	17	2.9010X	13	4	30.77X	5	5	5	5		
683 WARPING, AND REL.WORK	10	1.7065X	10	0	.00X	0	0	0	0		
686 PUNCHING, CUTTING FORMING, AND REL.WORK	1	.1706X	0	0	.00	0	0	0	0		
689 TEXTILE OCCUPATIONS, N.E.C.	16	2.7304X	4	0	.00X	11	10	10	10		
69 MACHINE TRADES OCCUPATIONS, N.E.C.	10	1.7065X	9	8	88.89X	9	9	9	7		
690 PLASTIC, SYN RUBBER & LEATHER WORK. OCCS.	6	1.0239X	5	5	100.00X	6	6	6	6		
691 FABRICATION OF INSUL	3	.5119X	3	2	66.67X	2	2	2	0		
699 MISC. MACHINE WORK OCCUPATIONS, N.E.C.	1	.1706X	1	1	100.00X	1	1	1	1		
7 BENCH WORK	2	15.1877X	54	41	75.93X	92	74	74	38		
70 METAL PROD. FAB. ASS EMBLY & REPAIR, NEC	1	.1706X	0	0	.00	6	4	4	4		
705 FILING, GRINDING, BUF, CLEANING & POL OCCS.	1	.1706X	0	0	.00	1	1	1	1		
706 METAL UNIT ASSEMBLY & ADJUSTING N.E.C.	0	.0000X	0	0	.00	5	3	3	3		
71 FAB/REP SCIENT, MED PHOTO, OPT, HOR, TEL, PB	5	.8532X	4	0	.00X	0	0	0	0		
710 FAB, REP, INS. FOR MEAS CON. & IND. PHY CHAR	4	.6826X	3	0	.00X	0	0	0	0		
714 FAB. & REPAIR OF PHOTO. EQUIP & SUPP	1	.1706X	1	0	.00X	0	0	0	0		
72 ASSEMBLY AND REPAIR OF ELECTRICAL EQUIP.	63	10.7509X	33	28	84.85X	71	56	56	26		

Table 18.-ES JOB BANK OPENINGS IN REPORTING DISTRICTS
BY OCCUPATIONAL CATEGORY, DIVISION AND GROUP
LOWELL
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PAGE 8

JOB TITLE	OPENINGS AVAILABLE	TOTAL	DISTRIB %	OPENINGS UNFILLED	AS A % OF UNFILLED	OPENINGS AVAILABLE	TOTAL	OPENINGS UNFILLED	TOTALS FROM A MONTH EARLIER	OPENINGS UNFILLED	30 DAYS OR MORE	30 DAYS OR MORE
720 RADIO & TV RECEIVERS & PHONO. ASSEMB/REP	0		.0000X	0		1		0	0		0	0
724 COILS MAGNETS ARMAT	11		1.8771X	10	100.00X	10		10	10		0	0
726 URES WINDING & ASSEM	46		7.8498X	23	78.26X	56		44	44		26	26
728 OCCS. IN FABRICATION	6		1.0239X	0	.00	4		2	2		0	0
74 PAINTING, DECORATING AND RELATED OCCS.	2		.3413X	2	100.00X	2		2	2		2	2
741 SPRAY PAINTING	2		.3413X	2	100.00X	2		2	2		2	2
75 PLASTICS, SYN., RUBBER & REL. PROD. FAB/REP	1		.1706X	0	.00	0		0	0		0	0
754 FAB. AND REP. OF MISC. PLASTICS PRODUCTS	1		.1706X	0	.00	0		0	0		0	0
76 OCCS. IN FAB/REPAIR OF WOOD PRODUCTS	2		.3413X	1	.00X	0		0	0		0	0
761 LAY. OUT, CUT, CARV, SHA P. SAND, WOOD, PRO, NEC	1		.1706X	0	.00	0		0	0		0	0
763 FABRICATION & REPAIR OF FURNITURE, N.E.C.	1		.1706X	1	.00X	0		0	0		0	0
78 FAB/REP OF TEXTILE LEATHER & REL. PROD.	15		2.5597X	14	78.57X	13		12	12		6	6
781 LAY. OUT, MARK., CUT. & PUNCH, OCCS., NEC	4		.6826X	3	100.00X	4		4	4		0	0
782 HANDSEWING, MENDING EMBROID, & KNIT NEC	2		.3413X	2	100.00X	2		2	2		2	2
787 MACHINE SEWING OPER- ATORS, NONGARMENT	3		.5119X	3	.00X	0		0	0		0	0
788 OCCS. IN FABRICATION & REPAIR OF FOOTWEAR	6		1.0239X	6	100.00X	7		6	6		4	4
8 STRUCTURAL WORK	113		19.2833X	60	38.33X	77		44	44		23	23
80 OCCUPATIONS IN METAL FABRICATION N.E.C.	10		1.7065X	2	.00X	9		8	8		2	2
804 TINSMITHS, COPPERSMIT HS&SHT.MTL.WORKERS	8		1.3652X	0	.00	9		8	8		2	2

Table 18-ES JOB BANK OPENINGS IN REPORTING DISTRICTS
BY OCCUPATIONAL CATEGORY, DIVISION AND GROUP
LOWELL MAR 1980

PAGE 10

JOB TITLE	OPENINGS AVAILABLE		OPENINGS UNFILLED		TOTALS FROM A MONTH EARLIER	
	TOTAL	%	TOTAL	AS A % OF UNFILLED	OPENINGS AVAILABLE	OPENINGS UNFILLED
899 MISC. STRUCTURAL WORK OCCS., N.E.C.	4	.6826X	2	50.00X	1	0
9 MISCELLANEOUS	73	12.4573X	43	76.74X	64	1
90 MOTOR FREIGHT OCCUPATIONS	2	.3413X	1	.00X	4	0
905 HEAVY TRUCK DRIVING	1	.1706X	0	.00	3	0
906 LIGHT TRUCK DRIVING	1	.1706X	1	.00X	1	0
91 TRANSPORTATION OCCUPATIONS, N.E.C.	4	.6826X	4	100.00X	5	0
915 PARKING LOT & AUTO. SERVICE FACILITIES	4	.6826X	4	100.00X	5	0
92 PACKAGING/MATERIALS HANDLING OCCUPATIONS	63	10.7509X	34	85.29X	54	1
920 PACKAGING OCCUPATIONS	50	8.5324X	28	100.00X	46	1
922 MATERIALS MOVING AND STORING OCCS. N.E.C.	3	.5119X	0	.00	0	0
929 PACKAGING/MATERIALS HANDLING OCCS, N.E.C.	10	1.7065X	6	16.67X	8	0
97 GRAPHIC ART WORK OCCUPATIONS	4	.6826X	4	.00X	1	0
973 HAND COMPOSITION, TYPESETTING, REL. WORK	0	.0000X	0	.00	1	0
979 GRAPHIC ART WORK OCCUPATIONS, N.E.C.	4	.6826X	4	.00X	0	0

Table 18 -ES JOB BANK OPENINGS IN REPORTING DISTRICTS
AND PERCENT DISTRIBUTION OF JOB BANK OPENINGS BY SELECTED INDUSTRY GROUP
MASSACHUSETTS
LOWELL MAR 1980

PAGE 1

SELECTED INDUSTRY GROUP	OPENINGS AVAILABLE*	TOTAL	OPENINGS UNFILLED 30 DAYS OR MORE	PERCENT DISTRIBUTION OF OPENINGS	UNFILLED 30
TOTAL OPENINGS, ALL INDUSTRIES	586	338	151	44.67%	100.00%
TOTAL AGRICULTURE, FORESTRY, AND FISHING (01-09)	3	3	0	.00%	.00%
AGRICULTURAL SERVICES (09)	3	3	0	.00%	.00%
TOTAL MINING (10-14)	2	1	0	.00%	.00%
OIL AND GAS EXTRACTION (13)	2	1	0	.00%	.00%
TOTAL CONSTRUCTION (15-17)	19	10	4	40.00%	2.65%
BLDG. CONST.-GEN. CONTR. & OPER. BLDR. (15)	5	1	0	.00%	.00%
CONSTRUCTION--SPECIAL TRADE CONTRACTORS(17)	14	9	4	44.44%	100.00%
TOTAL MANUFACTURING (20-39)	320	179	113	63.13%	74.83%
DURABLE GOODS (24, 25, 32-39)	162	87	56	64.37%	49.56%
LUMBER AND WOOD PROD. EXCEPT FURNITURE(24)	5	3	0	.00%	.00%
FURNITURE AND FIXTURES (25)	1	0	0	.00%	.00%
STONE, CLAY, GLASS, AND CONCRETE PROD. (32)	2	2	2	100.00%	3.57%
PRIMARY METAL INDUSTRIES (33)	13	2	2	100.00%	3.57%
FAB. MET. PRO. EX. MACH. & TRANS. EQUIP.(34)	29	28	25	89.29%	44.64%
MACHINERY, EXCEPT ELECTRICAL (35)	77	42	21	50.00%	37.50%
ELEC. AND ELEC. MACH. EQUIP., AND SUP.(36)	1	0	0	.00%	.00%
TRANSPORTATION EQUIPMENT (37)	28	7	4	57.14%	7.14%
INSTRUMENTS, OPTICAL GOODS, TIME PIECES(38)	4	0	0	.00%	.00%
MISCELLANEOUS MANUFACTURING INDUSTRIES (39)	158	92	57	61.96%	50.44%
NONDURABLE GOODS (20-23, 26-31)	3	0	0	.00%	.00%
FOOD AND KINDRED PRODUCTS (20)	60	35	8	22.86%	14.04%
TEXTILE MILL PRODUCTS (22)	18	7	3	42.86%	5.26%
APPAREL AND OTHER FINISHED PROD., FAB. (23)	1	0	0	.00%	.00%
PAPER AND ALLIED PRODUCTS (26)	9	9	5	55.56%	8.77%
CHEMICALS AND ALLIED PRODUCTS (28)	53	28	28	100.00%	49.12%
RUBBER AND MISC. PLASTICS PRODUCTS (30)	14	13	13	100.00%	22.81%
LEATHER AND LEATHER PRODUCTS (31)	8	5	4	80.00%	2.65%
TOTAL TRANS. COMM. ELEC. GAS SAN. SVC (40-49)	1	1	0	.00%	.00%
LOCAL TRANSIT AND INTERURB. HWY TRANS(41)	1	0	0	.00%	.00%
MOTOR FREIGHT TRANSPORT. AND WAREHOUS. (42)	1	0	0	.00%	.00%
COMMUNICATION (48)	6	4	4	100.00%	100.00%

Table 18--ES JOB BANK OPENINGS IN REPORTING DISTRICTS
AND PERCENT DISTRIBUTION OF JOB BANK OPENINGS BY SELECTED INDUSTRY GROUP
LOWELL MASSACHUSETTS
MAR 1980

SELECTED INDUSTRY GROUP	OPENINGS AVAILABLE	OPENINGS UNFILLED 30 DAYS OR MORE	PERCENT DISTRIBUTION OF OPENINGS	AS A % OF TOTAL UNFILLED	AVAILABLE	UNFILLED	UNFILLED 30
TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
TOTAL WHOLESALE TRADE (50-51)	8	2	100.00%	100.00%	1.32%	59%	1.32%
WHOLESALE TRADE--DURABLE GOODS (50)	8	2	100.00%	100.00%	100.00%	100.00%	100.00%
TOTAL RETAIL TRADE (52-59)	30	24	54.17%	54.17%	5.12%	7.10%	8.61%
BLDG. MAT., HW., GAR. SUP., MOB. HM. DEAL (52)	5	4	.00%	.00%	16.67%	16.67%	.00%
GENERAL MERCHANDISE STORES (53)	8	4	100.00%	100.00%	26.67%	16.67%	30.77%
FOOD STORES (54)	1	1	100.00%	100.00%	3.33%	4.17%	7.69%
AUTOMOTIVE DEALERS AND GAS SVC. STATION (55)	6	6	66.67%	66.67%	20.00%	25.00%	30.77%
EATING AND DRINKING PLACES (58)	10	9	44.44%	44.44%	33.33%	37.50%	30.77%
TOTAL FINANCE, INSURANCE, AND REAL ESTATE (60-67)	10	9	33.33%	33.33%	1.71%	2.66%	1.99%
BANKING (60)	2	2	100.00%	100.00%	20.00%	22.22%	66.67%
INSURANCE (63)	7	7	14.29%	14.29%	70.00%	77.78%	33.33%
REAL ESTATE (65)	1	0	.00%	.00%	10.00%	.00%	.00%
TOTAL SERVICES (70-89)	108	80	15.00%	15.00%	18.43%	23.67%	7.95%
HOTELS, ROOMING HOUSES, CAMPS AND REL. (70)	1	0	.00%	.00%	.93%	.00%	.00%
PERSONAL SERVICES (72)	1	0	.00%	.00%	.93%	.00%	.00%
BUSINESS SERVICES (73)	57	45	2.22%	2.22%	52.78%	56.25%	8.33%
AUTOMOTIVE REPAIR, SERVICES & GARAGES (75)	4	2	.00%	.00%	3.70%	2.50%	.00%
MISCELLANEOUS REPAIR SERVICES (76)	9	6	33.33%	33.33%	8.33%	7.50%	16.67%
HEALTH SERVICES (80)	19	16	31.25%	31.25%	17.59%	20.00%	41.67%
LEGAL SERVICES (81)	1	1	.00%	.00%	.93%	1.25%	.00%
EDUCATIONAL SERVICES (82)	3	2	50.00%	50.00%	2.78%	2.50%	8.33%
SOCIAL SERVICES (83)	7	6	16.67%	16.67%	6.48%	7.50%	8.33%
MEMBERSHIP ORGANIZATIONS (86)	1	0	.00%	.00%	.93%	.00%	.00%
PRIVATE HOUSEHOLDS (88)	1	1	100.00%	100.00%	.93%	1.25%	8.33%
MISCELLANEOUS SERVICES (89)	4	1	100.00%	100.00%	3.70%	1.25%	8.33%
TOTAL PUBLIC ADMINISTRATION (91-97)	78	25	.00%	.00%	13.31%	7.40%	.00%
ADMINISTRATION OF HUMAN RESOURCES PGMS. (94)	58	25	.00%	.00%	74.36%	100.00%	.00%
NATIONAL SECURITY AND INTERNAT. AFFAIRS (97)	20	0	.00%	.00%	25.64%	.00%	.00%

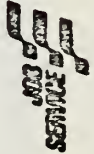


Table 1-9 TOTAL ES JOB BANK OPENINGS AND AVERAGE PAY
BY SELECTED INDUSTRY GROUP
LOWELL MAR 1980

PAGE 1

SELECTED INDUSTRY GROUP	OPENINGS AVAILABLE		OPENINGS UNFILLED		OPENINGS UNFILLED 30 DAYS	
	TOTAL	AVERAGE PAY	TOTAL	AVERAGE PAY	TOTAL	AVERAGE PAY
TOTAL OPENINGS, ALL INDUSTRIES	586	\$ 8,585	338	\$ 8,474	151	\$ 8,266
TOTAL AGRICULTURE, FORESTRY, AND FISHING (01-09)	3	10,830	3	10,830	0	0
AGRICULTURAL SERVICES (07)	3	10,830	3	10,830	0	0
TOTAL MINING (10-14)	2	8,320	1	8,320	0	0
OIL AND GAS EXTRACTION (13)	2	8,320	1	8,320	0	0
TOTAL CONSTRUCTION (15-17)	19	9,742	10	9,071	4	10,457
BLDG. CONST.-GEN. CONTR. & OPER. BLDR. (15)	5	9,308	1	12,480	0	0
CONSTRUCTION--SPECIAL TRADE CONTRACTORS(17)	14	9,896	9	8,692	4	10,457
TOTAL MANUFACTURING (20-39)	320	8,340	179	8,474	113	8,151
DURABLE GOODS (24, 25, 32-39)	162	8,571	87	8,701	56	8,606
FURNITURE AND WOOD PROD. EXCEPT FURNITURE(24)	5	8,320	3	8,320	0	0
FURNITURE AND FIXTURES (25)	1	7,280	0	0	0	0
STONE, CLAY, GLASS AND CONCRETE PROD. (32)	2	8,528	2	8,528	2	8,528
PRIMARY METAL INDUSTRIES (33)	2	10,400	2	10,400	2	10,400
FAB. MET. PRO. EX. MACH. & TRANS. EQUIP.(34)	13	7,840	3	9,187	2	10,140
MACHINERY, EXCEPT ELECTRICAL (35)	29	8,619	28	8,587	25	8,162
ELEC. AND ELEC. MACH. EQUIP., AND SUP.(36)	77	7,979	42	8,258	21	8,038
TRANSPORTATION EQUIPMENT (37)	1	10,400	0	0	0	0
INSTRUMENTS, OPTICAL GOODS, TIME PIECES(38)	28	9,827	7	11,340	4	12,740
MISCELLANEOUS MANUFACTURING INDUSTRIES (39)	4	12,480	0	0	0	0
NONDURABLE GOODS (20-23, 26-31)	158	8,104	92	8,259	57	7,704
FOOD AND KINDRED PRODUCTS (20)	3	7,550	0	0	0	0
TEXTILE MILL PRODUCTS (22)	60	8,544	35	8,549	8	8,008
APPAREL AND OTHER FINISHED PROD., FAB. (23)	18	6,952	7	6,760	3	6,760
PAPER AND ALLIED PRODUCTS (26)	1	9,922	0	0	0	0
CHEMICALS AND ALLIED PRODUCTS (28)	9	12,974	9	12,974	5	11,652
RUBBER AND MISC. PLASTICS PRODUCTS (30)	53	7,509	28	7,418	28	7,418
LEATHER AND LEATHER PRODUCTS (31)	14	6,805	13	6,832	13	6,832
TOTAL TRANS., COMM., ELEC., GAS, SAN. SVC (40-49)	8	8,736	5	8,840	4	8,450
LOCAL TRANSIT AND INTERURB. HIWY TRANS(41)	1	10,400	1	10,400	0	0
MOTOR FREIGHT TRANSPORT. AND WAREHOUS. (42)	1	12,480	0	0	0	0
COMMUNICATION (48)	6	7,835	4	8,450	4	8,450
TOTAL WHOLESALE TRADE (50-51)	8	8,255	2	7,280	2	7,280

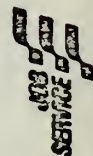


Table 19 - TOTAL ES JOB BANK OPENINGS AND AVERAGE PAY
BY SELECTED INDUSTRY GROUP
LOWELL MASSACHUSETTS
MAR 1980

PAGE 2

SELECTED INDUSTRY GROUP	OPENINGS AVAILABLE		OPENINGS UNFILLED		OPENINGS UNFILLED 30 DAYS	
	TOTAL	AVERAGE PAY	TOTAL	AVERAGE PAY	TOTAL	AVERAGE PAY
TOTAL WHOLESALE TRADE (50-51)	8	\$ 8,255	2	\$ 7,280	2	\$ 7,280
WHOLESALE TRADE--DURABLE GOODS (50)						
TOTAL RETAIL TRADE (52-59)	30	7,900	24	8,072	13	8,158
BLDG. MAT. HW. GAR. SUP. MOB. HM. DEAL (52)	5	8,337	4	8,341	0	0
GENERAL MERCHANDISE STORES (53)	8	7,982	4	8,840	4	8,840
FOOD STORES (54)	1	6,448	1	6,448	1	6,448
AUTOMOTIVE DEALERS AND GAS SVC. STATION (55)	6	8,210	6	8,210	4	8,460
EATING AND DRINKING PLACES (58)	10	7,575	9	7,701	4	7,603
TOTAL FINANCE, INSURANCE, AND REAL ESTATE (60-67)	10	12,618	9	12,864	3	7,393
BANKING (60)	2	6,760	2	6,760	2	6,760
INSURANCE (63)	7	14,608	7	14,608	1	8,658
REAL ESTATE (65)	1	10,400	0	0	0	0
TOTAL SERVICES (70-89)	108	7,934	80	7,963	12	9,054
HOTELS, ROOMING HOUSES, CAMPS AND REL. (70)	1	7,280	0	0	0	0
PERSONAL SERVICES (72)	1	10,400	0	0	0	0
BUSINESS SERVICES (73)	57	7,341	45	7,253	1	6,760
AUTOMOTIVE REPAIR, SERVICES & GARAGES (75)	4	11,960	2	16,640	0	0
MISCELLANEOUS REPAIR SERVICES (76)	9	8,551	6	9,187	2	12,480
HEALTH SERVICES (80)	19	7,724	16	7,463	5	6,764
LEGAL SERVICES (81)	1	10,400	1	10,400	0	0
EDUCATIONAL SERVICES (82)	3	12,167	2	13,250	1	17,000
SOCIAL SERVICES (83)	7	7,375	6	7,904	1	7,904
MEMBERSHIP ORGANIZATIONS (86)	1	9,360	0	0	0	0
PRIVATE HOUSEHOLDS (88)	1	8,840	1	8,840	1	8,840
MISCELLANEOUS SERVICES (89)	4	7,436	1	9,360	1	9,360
TOTAL PUBLIC ADMINISTRATION (91-97)	78	9,852	25	8,320	0	0
ADMINISTRATION OF HUMAN RESOURCES PGMS. (94)	58	9,362	25	8,320	0	0
NATIONAL SECURITY AND INTERNAT. AFFAIRS (97)	20	11,274	0	0	0	0

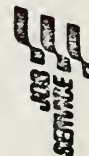


Table 20 -TOTAL ES JOB BANK OPENINGS AND AVERAGE PAY
BY SELECTED INDUSTRY GROUP
LOWELL MASSACHUSETTS
MAR 1980

PAGE 1

SELECTED INDUSTRY GROUP	OPENINGS AVAILABLE TOTAL	AVERAGE PAY	OPENINGS UNFULFILLED TOTAL	AVERAGE PAY	OPENINGS UNFULFILLED 30 DAYS TOTAL	AVERAGE PAY
TOTAL OPENINGS, ALL INDUSTRIES	586	\$ 8,585	338	\$ 8,474	151	\$ 8,266
TOTAL AGRICULTURE, FORESTRY, AND FISHING (01-09)	3	10,830	3	10,830	0	0
AGRICULTURAL SERVICES (07)	3	10,830	3	10,830	0	0
TOTAL MINING (10-14)	2	8,320	1	8,320	0	0
OIL AND GAS EXTRACTION (13)	2	8,320	1	8,320	0	0
TOTAL CONSTRUCTION (15-17)	19	9,742	10	9,071	4	10,457
BLDG. CONST.-GEN. CONTR. & OPER. BLDR. (15)	5	9,308	1	12,480	0	0
CONSTRUCTION--SPECIAL TRADE CONTRACTORS(17)	14	9,896	9	8,692	4	10,457
TOTAL MANUFACTURING (20-39)	320	8,340	179	8,474	113	8,151
DURABLE GOODS (24-25, 32-39)	162	8,571	87	8,701	56	8,606
LUMBER AND WOOD PROD. EXCEPT FURNITURE(24)	5	8,320	3	8,320	0	0
FURNITURE AND FIXTURES (25)	1	7,280	0	0	0	0
STONE, CLAY, GLASS, AND CONCRETE PROD. (32)	2	8,528	2	8,528	2	8,528
PRIMARY METAL INDUSTRIES (33)	2	10,400	2	10,400	2	10,400
FAB. MET. PRO. EX. MACH. & TRANS. EQUIP. (34)	13	7,840	3	9,187	2	10,140
MACHINERY, EXCEPT ELECTRICAL (35)	29	8,619	28	8,587	25	8,162
ELEC. AND ELEC. MACH. EQUIP. AND SUP. (36)	77	7,979	42	8,258	21	8,038
TRANSPORTATION EQUIPMENT (37)	1	10,400	0	0	0	0
INSTRUMENTS, OPTICAL GOODS, TIME PIECES(38)	28	9,827	7	11,340	4	12,740
MISCELLANEOUS MANUFACTURING INDUSTRIES (39)	4	12,480	0	0	0	0
NONDURABLE GOODS (20-23, 26-31)	158	8,104	92	8,259	57	7,704
FOOD AND KINDRED PRODUCTS (20)	3	7,550	0	0	0	0
TEXTILE MILL PRODUCTS (22)	60	8,544	35	8,549	8	8,008
APPAREL AND OTHER FINISHED PROD., FAB. (23)	18	6,952	7	6,760	3	6,760
PAPER AND ALLIED PRODUCTS (26)	1	9,922	0	0	0	0
CHEMICALS AND ALLIED PRODUCTS (28)	9	12,974	9	12,974	5	11,652
RUBBER AND MISC. PLASTICS PRODUCTS (30)	53	7,509	28	7,418	28	7,418
LEATHER AND LEATHER PRODUCTS (31)	14	6,805	13	6,832	13	6,832
TOTAL TRANS., COMM., ELEC., GAS, SAN. SVC (40-49)	8	8,736	5	8,840	4	8,450
LOCAL TRANSIT AND INTERURB. HWY TRANS(41)	1	10,400	1	10,400	0	0
MOTOR FREIGHT TRANSPORT. AND WAREHOUS. (42)	1	12,480	0	0	0	0
COMMUNICATION (48)	6	7,835	4	8,450	4	8,450
TOTAL WHOLESALE TRADE (50-51)	8	8,255	2	7,280	2	7,280

Table 20

---TOTAL ES JOB BANK OPENINGS AND AVERAGE PAY
BY SELECTED INDUSTRY GROUP
LOWELL MAR 1980 MASSACHUSETTS

PAGE 2

SELECTED INDUSTRY GROUP	TOTAL	OPENINGS AVAILABLE	AVERAGE PAY	TOTAL	OPENINGS UNFILLED	AVERAGE PAY	TOTAL	OPENINGS UNFILLED 30 DAYS	AVERAGE PAY
TOTAL WHOLESALE TRADE (50-51)	8	\$ 8,255		2	\$ 7,280		2	\$ 7,280	
WHOLESALE TRADE--DURABLE GOODS (50)									
TOTAL RETAIL TRADE (52-59)	30	7,900		24	8,072		13	8,158	
BLDG. MAT. HW. GAR. SUP. MOB. HM. DEAL (52)	5	8,337		4	8,341		0	0	
GENERAL MERCHANDISE STORES (53)	8	7,982		4	8,840		4	8,840	
FOOD STORES (54)	1	6,448		1	6,448		1	6,448	
AUTOMOTIVE DEALERS AND GAS SVC. STATION (55)	6	8,210		6	8,210		4	8,460	
EATING AND DRINKING PLACES (58)	10	7,575		9	7,701		4	7,603	
TOTAL FINANCE, INSURANCE, AND REAL ESTATE (60-67)	10	12,618		9	12,864		3	7,393	
BANKING (60)	2	6,760		2	6,760		2	6,760	
INSURANCE (63)	7	14,608		7	14,608		1	8,658	
REAL ESTATE (65)	1	10,400		0	0		0	0	
TOTAL SERVICES (70-89)	108	7,934		80	7,963		12	9,054	
HOTELS, ROOMING HOUSES, CAMPS AND REL. (70)	1	7,280		0	0		0	0	
PERSONAL SERVICES (72)	1	10,400		0	0		0	0	
BUSINESS SERVICES (73)	57	7,341		45	7,253		1	6,760	
AUTOMOTIVE REPAIR, SERVICES, & GARAGES (75)	4	11,960		2	16,840		0	0	
MISCELLANEOUS REPAIR SERVICES (76)	9	8,551		6	9,187		2	12,480	
HEALTH SERVICES (80)	19	7,724		16	7,663		5	6,764	
LEGAL SERVICES (81)	1	10,400		1	10,400		0	0	
EDUCATIONAL SERVICES (82)	3	12,167		2	13,250		1	17,000	
SOCIAL SERVICES (83)	7	7,375		6	7,904		1	7,904	
MEMBERSHIP ORGANIZATIONS (86)	1	9,360		0	0		0	0	
PRIVATE HOUSEHOLDS (88)	1	8,840		1	8,840		1	8,840	
MISCELLANEOUS SERVICES (89)	4	7,436		1	9,360		1	9,360	
TOTAL PUBLIC ADMINISTRATION (91-97)	78	9,852		25	8,320		0	0	
ADMINISTRATION OF HUMAN RESOURCES PGMS. (94)	58	9,362		25	8,320		0	0	
NATIONAL SECURITY AND INTERNAT. AFFAIRS (97)	20	11,274		0	0		0	0	

VII. CETA Activities and The Need for Manpower Services

Individuals with low skills and education levels are always the ones most in need of manpower services. Skilled and educated people who are displaced due to a decline or change in technology in the industry in which they were employed, also need assistance.

Low educational levels and lack of job skills correlate with high unemployment and low incomes, both of which are found among the economically disadvantaged. The economically disadvantaged are defined as members of families receiving welfare payments, or whose annual incomes in relation to family size and location does not exceed the most recently established poverty levels determined by the Office of Management and Budget.

Table 21 1980 Poverty Income Guidelines*

Size Of Family Unit	Nonfarm Family	Farm Family
1	\$ 3,790	\$ 3,250
2	5,010	4,280
3	6,230	5,310
4	7,450	6,340
5	8,670	7,370
6	9,890	8,400

For family units with more than 6 members, add \$1,220.
For each additional member in a nonfarm family add \$1,030 for each additional member in a farm family.

* Source: U. S. Department of Labor Employment and Training Administration.

CETA offers a number of different types of employment and training opportunities for the economically disadvantaged, unemployed and underemployed persons. Titles II B and C provide classroom training, OJT work experience and educational services to economically disadvantaged individuals.

Title IID and Title VI are Public Service Employment (PSE) Programs. Title VI provides counter cyclical employment during periods of high unemployment. Title IV is the youth program and participants must be between the ages of 14 and 22, be either unemployed or in-school and be economically disadvantaged. Tables 22 and 23 show data concerning the Lowell Consortium programs for the period from October 1979 through March 1980.

Table 22 Enrollment in CETA Program Activities
Lowell Consortium
Year-to-Date
March 1980

	Actual	Plan	Percent Of Plan
<u>Title II BC</u>			
<u>Classroom Training</u>			
Occupational Skills	191	155	123
Other	146	85	172
On-the-Job-Training	103	245	42
Work Experience (In School)	216	245	88
Work Experience (Other)	81	150	54
<u>Title IID</u>			
<u>Public Service</u>			
Employment	411	440	93
PSE Participants in Training/Services	190	220	86
<u>Title VI</u>			
<u>Public Service</u>			
Employment	466	463	101
PSE Participants in Training/Services	199	232	86
<u>Title VII</u>			
Classroom Training	14	35	40

Source: Lowell CETA Program
March 1979

Table 23 Lowell CETA Program Status Summary
Grant Year-to-Date Plan
October 1, 1979-March 31, 1980

Significant Segments	Total	Percent Of Total
<u>Title II BC</u>	1,039	--
Economically Disadvantaged	1,039	100.0
Female	472	45.4
Hispanic	285	27.4
Black	40	3.8
Vietnam Era Veterans	23	2.2
Special Disabled Veterans	4	0.4
Handicapped	139	13.4
Offenders	193	18.6
Public Assistance	423	40.7
<u>Title IID</u>	411	--
Economically Disadvantaged	356	86.6
Female	181	44.0
Black	17	4.1
AFDC	52	12.7
Public Assistance	90	21.9
Veterans	85	20.7
Vietnam Era Veterans	11	2.7
Special Disabled Veterans	1	0.2
Hispanic	25	6.1
<u>Title VI</u>	466	--
Female	111	23.8
Black	6	1.3
Hispanic	33	7.1
Veterans	136	29.2
Special Disabled Veterans	3	0.6
Vietnam Era Veterans	20	4.3
AFDC	60	12.9
<u>Title VII</u>	14	--
Female	10	71.4
Black	0	--
Hispanic	2	14.2
Veterans	1	7.1
Special Disabled Veterans	0	--
Vietnam Era Veterans	1	7.1
AFDC	0	--

Source: Lowell CETA, Program Status Summary - March 1980

Table 24 Youth Program Status Summary
Lowell Consortium
March 1980

	Enrollment in Program Activities (Year-to-Date)		
	Actual	Plan	Percent Of Plan
<u>YCC IP</u>			
Work Experience	28	38	74
<u>YETP</u>			
Career Employment Experience	163	135	121
Classroom Training Occupational Skills	245	210	116
Work Experience	88	50	176

Source: Lowell CETA Program Status Summary
March 1980

Table 25 Characteristics of Applicants in WIN
 From
 October 1979 to March 1980
 Lowell

	Number Of Applicants	Percentage
TOTAL	1,805	100.0
Female	1,447	80.2
Under Age 20	126	7.0
30 - 39 Years Old	736	40.8
45 Years or Older	289	16.0
Hispanic	262	14.5
Veterans	69	3.8
Vietnam Veterans	12	0.7
12 or More Years of Schooling	734	40.6
Disadvantaged	1,802	99.8

Source: March 1980 ESARS, Table 06, LOFF 4109
 (Active File at end of period)

Table 26 Youth Program Status Summary
 Lowell Consortium
 October 1, 1979 - March 31, 1980

Significant Segments	Grant Year to Date Plan		
	Actual	Plan	Percent Of Plan
<u>YCCIP</u>	28	38	74
Economically Disadvantaged	24	--	--
Female	16	--	--
Black	1	--	--
Hispanic	2	--	--
High School Dropout	19	--	--
 <u>YETP</u>	 245	 210	 116
Economically Disadvantaged	208	--	--
Female	156	--	--
Hispanic	24	--	--
Black	5	--	--
Offenders	20	--	--
High School Dropouts	102	--	--
Handicapped	9	--	--

Source: Lowell CETA Program
 Status Summary, March 1980

Employment Opportunity Pilot Program

As this publication goes to press, preliminary feedback is becoming available on the Employment Opportunity Pilot Program a national welfare reform demonstration program in Lowell funded by the Department of Labor. This intensive pilot program for eligible welfare recipients with children includes an eight week job search assistance program in which each client receives an individual employability development plan and the needed support services to look for unsubsidized work. Only after individuals have failed to find work during the eight week search are they eligible for a PSE job or CETA training.

The program requires the participants to treat job hunting as a full-time job. It includes training on how to get interviews and how to present oneself to a prospective employer, and provides both peer support and child care services which enable a job seeker to concentrate on finding a job.

In addition to requiring full-time effort, the demonstration program includes training in how to find a job. The very structured program requires each client to list personal career goals and follows this with intensive work on marketing oneself. Each client develops a resume, hears job hunting tips, and learns how to sell oneself in interviews.

Support is a key element of this program with the Lowell Job Club supplying a counselor for each eight to ten clients. Appropriate child care is of critical importance to the program's success. CETA PSE slots are used to train welfare mothers as child care providers and as a source of day care for program participants.

Early feedback from Job Club activities shows a 76 percent placement rate. Of the pool of potential clients, 15 percent were screened out by the program's full-time requirements.

ANALYSIS OF APPLICANT POPULATION AS OF SEPTEMBER 30, 1979

25 MASSACHUSETTS
017 COUNTY: MIDDLESEX

ALL APPLICANTS

CATEGORY	*****TOTAL APPLICANTS*****				*****DISADVANTAGED APPLICANTS*****				*****VETERAN APPLICANTS*****			
	UNEMPLOYED	EMPLOYED	YOUTH	16-21	UNEMPLOYED	EMPLOYED	YOUTH	16-21	UNEMPLOYED	EMPLOYED	YOUTH	16-21
	TOTAL	PLAYED	PRI/TIME	HANDICP	ASSIST	TOTAL	PLAYED	PRI/TIME	TOTAL	DISABLD	VIETNAM	
AGE/SEX, TOTAL	78,723	63,475	2,942	17,835	3,256	11,026	21,019	18,060	998	816	2,870	1,093
MALE, TOTAL	40,083	31,646	1,046	9,999	2,462	2,717	8,072	7,077	145	135	1,541	1,064
14-15	456	388	2	1,792	3	40	302	293	1	0	410	2
16-17	1,792	1,380	70	1,629	8	108	410	367	5	2	237	0
18	1,629	1,136	140	2,136	17	64	237	206	10	2	319	1
19	2,136	1,548	85	2,442	23	56	319	268	12	5	575	3
20-21	4,442	3,223	147	4,442	78	121	575	467	16	15	0	14
22-24	6,448	5,005	158	0	204	209	904	779	20	12	0	63
25-44	17,172	13,904	358	0	1,148	1,652	3,968	3,484	71	77	0	438
45-54	3,395	2,784	46	0	1,472	1,339	894	789	6	15	0	221
55-64	2,105	1,726	29	0	444	120	411	374	4	7	0	280
65/OVER	508	452	11	0	65	8	52	50	0	0	0	42
FEMALE, TOTAL	38,640	31,829	1,896	7,836	794	8,309	12,947	10,983	853	681	1,329	29
14-15	397	351	3	1,779	2	25	260	255	3	0	397	0
16-17	1,779	1,410	93	1,442	6	81	397	354	10	5	243	0
18	1,442	1,033	147	1,627	8	77	243	205	14	10	418	0
19	2,988	2,238	96	2,988	21	84	418	367	16	14	0	0
20-21	4,337	3,251	182	0	59	151	717	636	26	19	0	0
22-24	18,534	15,374	980	0	385	344	8,154	6,739	643	521	0	23
25-44	4,832	4,170	199	0	174	5,918	1,933	1,687	107	92	0	70
45-54	2,322	2,044	55	0	119	1,339	500	450	19	15	0	4
55-64	382	335	4	0	12	26	54	53	1	0	0	1

CATEGORY	*****TOTAL APPLICANTS*****				*****DISADVANTAGED APPLICANTS*****				*****VETERAN APPLICANTS*****			
	UNEMPLOYED	EMPLOYED	YOUTH	16-21	UNEMPLOYED	EMPLOYED	YOUTH	16-21	UNEMPLOYED	EMPLOYED	YOUTH	16-21
	TOTAL	PLAYED	PRI/TIME	HANDICP	ASSIST	TOTAL	PLAYED	PRI/TIME	TOTAL	DISABLD	VIETNAM	
RACE/SEX, TOTAL	78,728	63,479	2,942	17,835	3,256	11,026	21,020	18,061	998	816	2,870	1,093
MALE, TOTAL	40,085	31,647	1,046	9,999	2,462	2,717	8,072	7,077	145	135	1,541	1,064
WHITE	37,243	29,398	988	9,346	2,343	2,396	7,133	6,240	125	122	1,314	1,029
BLACK	1,304	1,035	33	318	47	103	351	313	8	6	91	20
HISPANIC	1,199	935	18	289	63	192	515	458	9	6	130	12
AMER/INDIAN	44	35	2	4	1	1	10	8	1	1	2	0
ASIAN/PACIFIC	211	175	4	28	6	22	44	40	2	0	1	2
INA	84	69	1	14	2	3	19	18	0	0	3	1
FEMALE, TOTAL	38,643	31,832	1,896	7,836	794	8,309	12,948	10,984	853	681	1,329	29
WHITE	35,958	29,566	1,829	7,330	724	7,400	11,567	9,730	829	623	1,148	29
BLACK	1,357	1,127	36	283	25	435	647	585	14	26	81	12
HISPANIC	1,989	846	19	179	42	413	631	577	5	27	90	2
AMER/INDIAN	30	25	1	3	0	14	19	18	1	1	2	0
ASIAN/PACIFIC	243	213	10	35	3	35	65	59	4	1	5	0
INA	66	55	1	6	0	12	19	15	1	3	3	0

VIII. Summary and Conclusions

Since 1975, the year marked by the nadir of the last recession with a local unemployment rate of 11.9 percent, the Lowell LMA economy has undergone a dramatic revival. The area has witnessed a change in its economic base highlighted by the rapid growth of high technology industries, particularly the expansion of Wang Laboratories, the largest private industrial development in the city's history.

Within the manufacturing sector, the major shift in the economy has been away from the traditional reliance on nondurable goods such as textiles and leather products which were highly vulnerable to recessionary forces. The movement away from the more energy intensive industries, to the low bulk, high value added, low energy intensive, high labor intensive, durable goods sector has left the area far more resistant to national economic downturns.

Expansion in this newly dominant sector, has brought the Lowell LMA to the point of becoming a high technology center, where finding qualified workers has become a problem. Even a moderately severe national recession will have little effect on this condition. Demand will remain high for electrical engineers, computer programmers, electronic assemblers, machinists, and clerical help.

While the recession clouds a fairly bright short-term outlook, the longer run prospects for the LMA are indeed bright. The same public and private investment, the same public and private leadership, the same economic and technological factors which have combined to give the Lowell LMA its lowest unemployment rate in history should continue to improve the area's position. The Lowell LMA should be one of the area's best suited to take advantage of the changing economic conditions over the next few years.



ANNUAL PLANNING INFORMATION REPORT FISCAL YEAR 1982 LOWELL LMA

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Massachusetts Division of Employment Security

job market research



THE COMMONWEALTH OF MASSACHUSETTS
DIVISION OF EMPLOYMENT SECURITY
Charles F. Hurley Building
Government Center, Boston, MA 02114

ANNUAL PLANNING INFORMATION REPORT
FISCAL YEAR 1982

LOWELL, MASSACHUSETTS

LABOR MARKET AREA

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I. Highlights and Conclusions

The Lowell LMA is completing its transition from reliance on the declining textile industry. High technology now dominates employment in Lowell and the area is increasingly being used by the media as a microcosm of New England.

Unemployment at the end of 1980, was a relatively low 5.7 percent. Since 1975, the nadir of the last major recession with unemployment at 11.9 percent, Lowell's unemployment rate has fallen by 6.2 percentage points, compared with a drop of 5.6 percentage points statewide and 1.4 percentage points nationally. During that same time, nonagricultural employment grew by 17,200 or 29.0 percent.

Both public and private investment and leadership combined to make Lowell the metaphor for a revived New England propelled by its expanding high tech industry. While many companies, large and small, have made significant contributions to Lowell's development, Wang Laboratories has led the way in the creation of wealth, jobs, and tax revenue.

The rise of the high-tech industry, which has created an exceptional demand for all types of skilled labor, raises the questions: will growth continue along the same track; and will expanded production continue in an area which historically has seen industries migrate to other regions as they began to mature and their job creating impact increased.

Looking to the future, the Lowell Labor Area's strength seems to be related more to the diversity of skills in its labor force rather than to any particular products. It possesses excellent educational institutions (both vocational and academic) as well as a developing reputation for close cooperation between government and business where specialized training is needed.

As early as 1979, the influence of supply-side economics began to emerge locally as the Massachusetts High Technology council and the Governor agreed to a "social contract". This called for a reduction of total state and local tax rates by 1982, thus putting the state on a equal footing with its competitors. In return the high-tech council promised to create 60,000 new jobs by 1983 as part of a general economic revival that would accompany the tax reductions.

This vision no longer exceeds public policy. The 1980 passage of tax limitation legislation at the state level as well as new economic policy at the national level, should enable the area to continue to attract the highly skilled scientists and engineers vital to the state's (and particularly Lowell's) continuation as the hub of high technology industry.

II A. Definition of Area and CETA Prime Sponsor

The Lowell Labor Market Area is located within Middlesex County, largely in the Merrimack Valley at the confluence of the Merrimack and Concord Rivers. The LMA, whose northern boundary borders on New Hampshire, consists of the City of Lowell, and the towns of Billerica, Chelmsford, Dracut, Dunstable, Tewksbury, Tyngsborough, and Westford, encompassing approximately 171.4 square miles.

The Lowell CETA prime sponsor covers the same municipalities as the Lowell LMA.

B. Definition of Job Matching Service Center

The towns of the Lowell LMA as well as the town of Littleton are served by the Job Matching Service Center located at 291 Summer Street in Lowell. The local Job Matching Service Center functions as a labor exchange matching worker skills and interests with employer job openings. Services provided include:

Interviewing jobseekers to identify their skills, experience, knowledge, and interests.

Listing job openings received from employers.

Referring jobseekers who meet the hiring requirements of the jobs listed.

Counselling and testing jobseekers, who have questions of vocational choice, change, or adjustment, to assist them in obtaining suitable employment.

C. Transportation

Limited access Routes 3 and 495 provide commercial road transportation. In addition, Route 495 connects with Route 93, a limited access interstate highway. The driving time to Logan International Airport in Boston, 25 miles away, is 45 minutes.

The Lowell Regional Transit Authority (LRTA) serves Billerica, Chelmsford, Dracut, Lowell, Tewksbury, Tyngsboro, and Westford, in the Lowell LMA as well as the towns of Acton, Groton, and Pepperell. Local routes converge on Kearney Square in Lowell. Service between Lowell and suburban towns is provided by the Pierce, Marinel, Trombly, and Vocell companies.

A labor area is a geographical area consisting of a central city or cities and the surrounding territory in which there is a concentration of economic activity and in which workers can generally change jobs without changing their residence.

Basic emphasis is on commuting patterns and the relationship between the workers place of residence and place of work.

Lowell LMA and Commuting Data

The unpublished Worker Commuting Data from the 1970 Census of population represent summary statistics on place of work and place of residence. The data are based on a 15 percent sample of the resident population. Of the total count of persons who reported place of work, 58.1 percent worked in the Lowell LMA, 38.5 percent in the City of Lowell and 19.6 percent in the remainder of the labor area. Almost 32 percent of the labor force commuted to the Boston SMSA, with 4.9 percent of the commuters working in the City of Boston. Approximately 5 percent commuted to the Lawrence-Haverhill SMSA.

Recent Place-of-Residence Adjustment Rates by the Bureau of Economic Analysis show a significant change in the relative commuting flow for the Lowell LMA between 1970 and 1976. In 1970, the number of employed who lived (place-of-residence) in the Lowell LMA exceeded the number of jobs (place-of-work) in the area. Between 1970 and 1976 both the number of jobs and the number of employed residents increased. The Bureau of Economic Analysis estimated that the number of jobs in the Lowell LMA in 1976 exceeded the number of employed individuals in the LMA. Because of this fact more Lowell residents are now working in the area and more nonresidents are commuting to jobs within the LMA.

III. ASSUMPTIONS AND PROJECTIONS FOR THE ECONOMY
COMMONWEALTH OF MASSACHUSETTS
FEDERAL FISCAL YEAR 1982 (FFY'82)

The Job Market Research staff of the Division of Employment Security gathers data; analyzes and reports on changes in the state's employment and unemployment situation. Even utilizing the most current data and computer models of the state and national economies, it is difficult to project future economic conditions. Forecasting is especially difficult during times of rapid change, such as we have been experiencing. The economic forecasts presented in this report are based on data available at the end of May, 1981.

1) Employment

Total employment in Massachusetts, reported in the Current Population Statistics (CPS) series, is expected to average 2,814,000 during FFY'82, an increase of about 30,000 from FFY'81.

Nonagricultural wage and salary jobs, reported in the Current Employment Statistics series (CES-790) is expected to average 2,731,100, an increase of 50,000 jobs from FFY'81 to FFY'82.

It is important to remember that the CPS estimates the number of people employed or unemployed based on their place of residence, whereas the CES-790 estimates the number of jobs based on employer location. Massachusetts has traditionally had a large proportion of dual job holders. Much of the job increase in services and in wholesale and retail trade will be part-time positions.

PROJECTED EMPLOYMENT BY INDUSTRY GROUP

Industry	Employment (in 000's)		
	FFY 1980 (Actual)	FFY 1981 ^{1/} (Projected)	FFY 1982 (Projected)
TOTAL NONAGRICULTURAL EMPLOYMENT	2642.2	2679.1	2731.1
Manufacturing - Total	675.7	669.1	681.6
Durable Goods	409.5	410.8	425.1
Nondurable Goods	266.2	258.3	256.5
Construction	74.8	74.3	81.7
Transportation, Communications and Public Utilities	122.0	124.8	125.2
Wholesale and Retail Trade	570.7	579.2	594.0
Finance, Insurance and Real Estate	157.6	162.5	165.4
Services	629.2	664.8	690.1
Government	412.3	404.3	393.1
Federal	58.5	57.5	56.0
State	97.5	98.6	96.6
Local	256.5	248.2	240.5

^{1/} Projection based on actual data for seven months and estimates for five months.

2) Unemployment

We project that Massachusetts' unemployment rate will average 5.7 percent during FFY'82, down from 5.9 percent in FFY'81 and one to one-and-a-half percentage points below the national average of 6.9 percent in FFY'82.

M A S S A C H U S E T T S					U.S.
	Labor Force (in 000's)	Employment (in 000's)	Unemployment (in 000's)	Unemp. Rate(%)	Unemp. Rate(%)
FFY'80	2863.6	2703.3	160.3	5.6	6.8
FFY'81	2957.1	2783.8	173.3	5.9	7.4
FFY'82	2984.1	2814.0	170.1	5.7	6.9

3) Labor Turnover in Manufacturing

Due to a strengthening economy, the number of layoffs is anticipated to decline in FFY'82. On the other hand, the level of quits may also be comparatively low, reflecting in part some uncertainty among the labor force about the strength of the job market. Recalls, which are a function of prior layoffs will be low. The growth in the durable goods industries will be reflected in a stronger rate of new hires.

4) Wages and Inflation

Wages are expected to increase by 8.7 percent, down slightly from the 9.5 percent increase in FFY'81. Total Massachusetts personal income, however, is expected to rise by nearly 11.5 percent. If the proposed decrease in federal personal income taxes takes effect, total disposable income may rise by as much as 12.5 percent. For the first time in several years, the increase in personal income will be greater than the rate of inflation. The era of double-digit inflation is expected to end during FFY'82. The projected increase in the Boston Consumer Price Index (CPI) is 8.7 percent, down from the 11.4 percent in FFY'81. Massachusetts' FFY'81 and '82 rates are both below the national CPI increases for these periods.

5) Credit

Consumers wanting loans of any type; mortgage, home repair, car, or personal; will find that the supply of money will continue to be very tight, with interest rates remaining variable but high throughout FFY'82. Currently, interest rates on home mortgages are over 16 percent, on personal loans over 18 percent, and on commercial and construction loans about 20 percent, however, loans are being made at both higher and lower rates. Banks and credit unions have significantly decreased or stopped making certain kinds of loans altogether.

A major cause of the tight money situation is the shift of money from regular savings accounts, where rates are limited by law, to savings certificates, money market accounts, and treasury obligations. All interest rates are sensitive to changes in U.S. Treasury and Federal Reserve Bank Policies. The size of the Federal tax cut and of the Federal budget deficit will influence the amount and cost of credit in FFY'82. More loan money is expected to go to commercial borrowers next year rather than to those purchasing homes or cars.

There are several pieces of legislation pending before Congress which are expected to affect the level of savings, and thus the amount of credit available. Perhaps the most important is the tax cut, which will increase the amount of disposable (and potentially savable) income. Congress is also considering bills that would: 1.) free certain amounts of savings income from taxes, and 2.) gradually lift the restrictions on the amount of interest banks can pay on passbook accounts.

6) Defense Contracts

Defense contract spending is expected to increase. The dollar value of military prime contracts going to Massachusetts firms has been over five percent of the total awarded nationally for the last three years. We expect our percentage share of the awards to remain steady or increase slightly. With the proposed increase in military spending in the coming years, defense contracts in Massachusetts should provide strong support for the state's economy.

7) Energy

Energy costs are not expected to rise as rapidly during FFY'82 as they have in the recent past. From January 1979 to January 1981 the average price for a gallon of home heating oil rose 104.7 percent in Massachusetts. Continued conservation and conversion to less expensive energy sources will help to hold future prices down. The industrial mix in Massachusetts is not, relatively, energy intensive, therefore, we do not expect that rising energy costs will hurt our industrial production to the extent it may in the rest of the nation. The present world oil glut should moderate gasoline and oil prices. The unknown in the energy situation remains Mideast political conflicts.

8) Exports

Massachusetts will continue to rank among the top ten states exporting manufactured products. Our leading exports will remain high technology equipment: instruments, electronic equipment, and computers. The actual demand for these products will be influenced by the rate of economic recovery in the European Common Market countries.

Table 1
Population and Labor Force Composition Projections
Fiscal Year 1982
Lowell LMA

Category	Population	Labor Force	Employment	Unemploy-ment	Unemploy Rate	Labor Force Participation Rate
TOTAL	222,727	125,792	118,171	7,422	5.9	56.4
<u>White Male</u>	106,169	66,042	62,227	3,716	5.6	62.2
0-15	27,971	--	--	--	--	--
16-19	10,036	8,197	--	--	--	81.7
20-24	10,989	10,375	--	--	--	94.4
25-34	14,293	14,007	--	--	--	98.0
35-44	12,103	11,861	--	--	--	98.0
45-64	22,124	19,588	--	--	--	88.5
65+	8,653	2,014	--	--	--	23.2
<u>White Female</u>	114,745	58,974	55,213	3,662	6.2	51.4
0-15	26,747	--	--	--	--	--
16-19	9,498	9,291	--	--	--	97.8
20-24	11,031	9,688	--	--	--	87.8
25-34	16,402	11,772	--	--	--	71.7
35-44	13,975	11,384	--	--	--	81.4
45-64	23,475	15,630	--	--	--	66.6
65+	13,617	1,209	--	--	--	8.9
<u>Nonwhite Male</u>	843	405	370	34	8.5	48.0
0-15	305	--	--	--	--	--
16-19	64	39	--	--	--	60.9
20-24	37	19	--	--	--	51.3
25-34	248	201	--	--	--	81.0
35-44	55	54	--	--	--	98.1
45-64	92	84	--	--	--	91.3
65+	42	8	--	--	--	19.0
<u>Nonwhite Female</u>	970	371	361	10	2.6	38.2
0-15	374	--	--	--	--	--
16-19	56	25	--	--	--	44.6
20-24	68	55	--	--	--	80.8
25-34	187	156	--	--	--	83.4
35-44	116	36	--	--	--	31.0
45-64	105	66	--	--	--	62.9
65+	65	33	--	--	--	50.8

Table 2
Labor Force Composition Projected Change
1970 - 1982
Lowell LMA

Race and Age	April 1, 1970	July 1, 1982	Change 1970 to 1982	
			Number	Percent
TOTAL	86,276	125,792	+39,516	+ 45.8
<u>White Males</u>				
16-17	2,072	4,314	+ 2,242	+108.2
18-19	2,067	3,883	+ 1,816	+ 87.9
20-24	5,187	10,375	+ 5,188	+100.0
25-34	12,648	14,007	+ 1,359	+ 10.7
35-44	12,197	11,861	- 336	- 2.8
45-64	16,834	19,588	+ 2,754	+ 16.4
65+	1,806	2,014	+ 208	+ 11.5
<u>White Females</u>				
16-17	1,724	4,706	+ 2,982	+173.0
18-19	2,051	4,585	+ 2,534	+124.0
20-24	4,684	9,688	+ 5,040	+108.4
25-34	5,288	11,772	+ 6,484	+122.6
35-44	6,591	11,384	+ 4,793	+ 72.7
45-64	11,543	15,630	+ 4,087	+ 35.4
65+	1,068	1,209	+ 141	+ 13.2
<u>Nonwhite Males</u>				
16-17	8	20	+ 12	+150.0
18-19	13	19	+ 6	+ 46.2
20-24	37	19	- 18	- 48.6
25-34	69	201	+ 132	+191.3
35-44	67	54	- 13	- 19.4
45-64	90	84	- 6	- 6.6
65+	9	8	- 1	- 11.1
<u>Nonwhite Females</u>				
16-17	4	13	+ 9	+225.0
18-19	4	12	+ 8	+200.0
20-24	45	55	+ 10	+ 22.2
25-34	69	156	+ 87	+126.1
35-44	21	36	+ 15	+ 71.4
45-64	50	66	+ 16	+ 32.0
65+	30	33	+ 3	+ 10.0

IV. Employment Developments by Industry

Nineteen-eighty was a year marked by sustained growth in the Lowell Labor Market Area. It was a year in which the area's core city firmly established itself as one of the premier mid-size cities in the country. The LMA's robust economic health continued as the count of area jobs reached a new peak of 78,743 in the fourth quarter according to the ES-202 (Quarterly Report of Employment Wages). Employment was 8.3 percent higher than 1979 total's and 65.2 percent higher than at its nadir in 1975.

Manufacturing industries have been responsible for much of the growth, adding 9,400 jobs since 1975. This strong performance was led by manufacturing's durable goods component particularly the area's "high technology" industries whose progress will be detailed and analyzed separately as part of the following narrative.

By contrast, the nondurable goods component of manufacturing has shown very little real growth over the past six years. Even with the addition of the Prince Macaroni Plant, the Food Products Industry's (SIC 20) total of 1,300 jobs is only 200 above its 1975 and 1979 levels. Textiles and apparel, two industries which have declined greatly in the area since the 1920's, have shown little or no growth in the past five years. Textiles, (SIC 22) where Joan Fabrics has been a bright spot, now stands slightly above its 1975 level of 2,600 jobs but down slightly from its 1976 peak of 3,000. Through the fourth quarter of 1980 Apparel (SIC 23) has added 70 jobs to stand at 920 or 80 below its 1975 total. Women's, Misses' and Juniors' outerwear (SIC 233), the apparel industry's largest component in the LMA, stabilized at 465 jobs and stands well below its 1975 employment level of 600. Printing and publishing (SIC 27) at 2290 jobs was 110 less than the level it maintained from 1975 through 1979, while leather products (SIC 31) at 1,210 jobs was down 690 from last year's total. Leather's largest component Footwear (SIC 314) accounted for 100 of these lost jobs and stands at 1,200. Recent removal of import restrictions on shoes should accelerate this decline.

Contract construction (SIC 15-17) which has climbed steadily from 2,100 jobs in 1975, reached a new peak of 2,920 jobs in the third quarter of 1980, and stands at 2,870 for the fourth quarter.

Transportation, communication and public utilities (SIC 41-49) gained slightly over the year to stand at 2,835 jobs. This was reflected in its largest component, Motor Freight Transportation (SIC 42), which increased 95 jobs to 995. Finance, Insurance and Real Estate remained virtually unchanged, adding 30 jobs to its 1979 total of 2,000.

The Service Industries, aided by the establishment of the Urban Parks, have seen major increases. Employment is now 12,370, a 50.9 percent increase over 1975 total of 8,200. Miscellaneous business services, (SIC 73), which now employ 1,560 people, led the way by more than tripling 1975 employment totals. Health Services (SIC 80) have also showed steady gains, adding some 300 jobs over the year to stand at 6,100 a new high.

Wholesale and retail trade, while highly affected by seasonal factors has also participated fully in the area's recovery. Fourth quarter 1980 levels of 16,000 jobs are 3,000 above 1975.

As mentioned earlier, the leitmotif in all stories of Lowell's success continues to be its "high technology" industry. Within the durable goods manufacturing sector "high technology industry" is an unofficial regrouping of selected industrial classifications in computer, office machine, space vehicle, instrument and related categories. Its recent growth rate has been among the fastest in the state. The most recent ES-202 data shows the Lowell LMA experiencing an extraordinary rapid 62.3 percent employment growth among high technology industries between 1978 and 1980. (Between 1976 and 1978 the area's high tech growth rate was a heady 36.8 percent). This increase translated into over 6,100 new jobs. Total high technology employment of 15,972 was 20.3 percent of the labor area's total employment in 1980 up from 17.0 percent in 1978.

The strong performance of the high technology industry was paced by two of its largest three industrial groups, Office and Computing Machines, and Electronic Components and Accessories. Since 1978, over 4,500 additional jobs were created by manufacturers of computing machines, while some 830 jobs were added in Electronic Components. The Communication Equipment industry recorded the most rapid rate of growth at 144 percent.

Firms Receiving Massachusetts Industrial Finance Agency (MIFA) Bonds
During 1980:

<u>Name of Company</u>	<u>Location</u>	<u>Estimated Jobs Created</u>
Systems Packaging Corp.	Billerica	10
Engineering Dynamics Corp.	Lowell	50
Wang Laboratories Inc.	Chelmsford	100
Equipment Sales Co. Inc.	Lowell	10
Optronics Inter Inc.	Chelmsford	17
Northeast Offset	Chelmsford	7
Astro-Circuit Corp.	Lowell	--
Warren Professional Assoc.	Lowell	26
Muro Pharmacal Labs.	Tewksbury	20
Olde Market House	Lowell	300
Northeast Automotive Assoc., Inc.	Billerica	2
Lowell Stationery Co., Inc.	Lowell	19
Controlonics Corp.	Westford	110
Tricone Realty Assoc.	Lowell	25
Holt & Bugbee	Tewksbury	121
Medical Equip. Service Co., Inc.	Chelmsford	12
Industrial Realty Trust	Lowell	65
Distributed Systems Corp./Westford Assoc.	Westford	84
Display Components Inc.	Westford	106

DIVISION OF EMPLOYMENT SECURITY
Table 3
EMPLOYMENT AND WAGES IN ESTABLISHMENTS SUBJECT TO THE MASSACHUSETTS EMPLOYMENT SECURITY LAW
BY CITY AND TOWN

TOTAL ANNUAL PAYROLL, AVERAGE ANNUAL WAGE, NUMBER OF ESTABLISHMENTS, AVERAGE ANNUAL EMPLOYMENT
BY MAJOR INDUSTRY DIVISION

Beginning 1967 - 1979

Year	Total Annual Payroll In 000's \$	Average Annual Wage	Number Establishments	AVERAGE ANNUAL EMPLOYMENT								
				Total Employment	Agriculture Forestry Fisheries	Mining	Contract Construction	Manufacturing	Trans. Comm. Utilities	Wholesale And Retail Trade	Finance Insurance Real Estate	Services
NO. ABOVE 234												
1967	\$ 81,418.9	\$ 6,553	164	12,424	10	0	85	10,834	263	518	36	678
1968	81,779.7	6,716	171	12,176	10	0	153	10,413	280	531	48	742
1969	87,220.5	7,383	179	11,013	11	0	200	9,683	205	858	32	744
1970	90,168.1	6,850	191	13,164	13	0	208	10,799	206	984	35	838
1971	107,425.7	8,527	199	12,599	14	0	246	10,077	281	967	38	976
1972*	119,810.4	9,479	212	12,640	20	0	207	9,446	284	1,007	54	1,622
1973	115,877.6	10,249	219	13,258	22	0	167	9,968	368	1,034	71	1,628
1974	140,442.1	10,821	216	13,718	20	0	126	10,324	376	1,113	88	1,671
1975	142,885.5	11,970	223	11,937	18	0	156	8,496	268	1,291	105	1,604
1976	133,250.0	12,669	226	10,518	19	0	135	6,907	310	1,282	109	1,716
1977	149,303.6	13,706	237	10,893	11	3	106	7,234	813	1,605	103	1,018
1978	175,734.9	14,851	255	11,833	12	0	133	7,928	888	1,367	193	1,312
1979	211,496.2	16,215	276	13,043	18	0	189	8,458	1,104	1,495	237	1,542
1980												
LOWELL 241												
1967	\$158,129.5	\$ 5,447	1,612	29,033	22	0	1,008	15,250	984	6,522	1,246	4,002
1968	171,165.1	5,854	1,589	29,583	19	0	1,193	15,562	1,028	6,503	1,257	4,022
1969	193,105.9	6,252	1,561	30,088	24	0	1,129	16,605	997	6,836	1,294	4,003
1970	196,345.0	6,628	1,543	29,625	31	0	1,006	15,698	981	6,861	1,366	3,681
1971	200,895.4	6,952	1,533	28,896	13	0	1,251	14,567	971	7,019	1,379	3,606
1972*	220,325.4	7,234	1,525	31,563	25	0	1,340	14,802	992	6,906	1,413	6,086
1973	242,699.0	7,558	1,522	32,110	30	0	1,066	16,052	1,011	6,620	1,465	5,866
1974	244,549.4	8,014	1,487	30,516	34	0	889	14,671	1,065	6,426	1,457	5,975
1975	245,153.1	8,669	1,457	28,304	27	0	762	12,706	1,374	6,129	1,478	5,746
1976	267,712.5	9,234	1,433	28,991	30	0	775	12,820	1,313	6,183	1,451	6,119
1977	284,277.4	9,640	1,449	29,489	35	0	854	13,050	1,253	6,492	1,577	6,228
1978	325,616.7	10,377	1,516	31,378	45	0	906	13,841	1,289	6,935	1,500	6,862
1979	374,926.1	11,195	1,529	33,469	20	0	1,043	15,289	1,170	7,002	1,434	7,531
1980												

TABLE 241

*Since January 1, 1972 most non-profit organizations formed and operated for religious, charitable, scientific, literary, educational, or similar other purposes are covered by The Massachusetts Employment Security Law.

Division of Employment Security
Table 3 (continued)

EMPLOYMENT AND WAGES IN ESTABLISHMENTS SUBJECT TO THE MASSACHUSETTS EMPLOYMENT SECURITY LAW
BY CITY AND TOWN

TOTAL ANNUAL PAYROLL, AVERAGE ANNUAL WAGE, NUMBER OF ESTABLISHMENTS, AVERAGE ANNUAL EMPLOYMENT
BY MAJOR INDUSTRY DIVISION

Beginning 1967 - 1979

Year	Total Annual Payroll in 000's \$	Average Annual Wage	Number Establishments	AVERAGE ANNUAL EMPLOYMENT									
				Total Employment	Agriculture Forestry Fisheries	Mining	Contract Construction	Manufacturing	Trans. Comm. Utilities	Wholesale And Retail Trade	Finance Insurance Real Estate	Services	
BILMERICA 242													
1967	\$13,430.4	\$5,332	241	2,519	5	0	242	809	92	878	11	403	
1968	15,395.5	5,845	239	2,634	6	0	242	916	91	963	19	397	
1969	22,319.0	6,830	244	3,268	4	0	247	1,200	136	1,191	24	465	
1970	31,490.0	7,671	265	4,105	4	0	270	1,710	151	1,402	29	531	
1971	38,021.5	8,213	299	4,727	5	0	325	2,038	170	1,473	46	670	
1972*	46,230.0	8,973	313	5,152	10	0	451	2,139	172	1,613	58	709	
1973	54,360.7	9,127	340	5,957	6	0	459	2,475	220	1,946	67	786	
1974	58,053.2	9,557	361	6,150	5	0	316	2,841	305	2,096	59	537	
1975	70,504.4	10,615	387	6,642	1	0	245	3,146	448	2,133	52	618	
1976	80,406.9	11,363	395	7,076	1	0	283	3,236	492	2,352	58	654	
1977	93,092.2	11,820	431	7,876	14	0	325	3,648	564	2,495	80	750	
1978	115,299.0	12,618	477	9,138	31	0	330	4,176	677	2,927	125	865	
1979	134,867.2	13,612	492	9,908	36	0	376	4,629	677	3,132	97	961	
1980													
CHELMSFORD 243													
1967	\$14,778.4	\$4,687	279	3,153	27	81	349	795	86	1,290	56	470	
1968	17,419.3	4,894	302	3,559	27	81	377	804	75	1,560	66	570	
1969	20,516.0	5,369	313	3,821	24	72	410	857	111	1,581	67	701	
1970	21,547.7	5,662	336	3,806	26	61	421	711	128	1,592	73	795	
1971	23,298.4	6,078	344	3,833	31	65	421	597	159	1,643	76	840	
1972*	28,043.2	6,520	375	4,301	34	58	566	661	164	1,878	102	839	
1973	33,323.9	6,963	408	4,706	36	63	629	839	162	1,963	247	847	
1974	35,012.6	7,212	409	4,855	41	61	486	1,018	175	1,979	255	841	
1975	40,052.7	8,019	436	4,995	26	59	371	989	199	2,238	250	862	
1976	41,176.0	7,928	450	5,194	27	60	390	1,036	215	2,244	265	927	
1977	45,849.6	8,267	483	5,546	39	59	419	1,133	269	2,357	275	995	
1978	55,131.3	9,062	522	6,084	29	57	472	1,310	296	2,440	301	1,180	
1979	61,145.7	10,272	547	6,537	46	55	441	1,580	327	2,425	310	1,345	
1980													

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THE COMMONWEALTH OF MASSACHUSETTS
DIVISION OF EMPLOYMENT SECURITY
Table 3 (continued)
EMPLOYMENT AND WAGES IN ESTABLISHMENTS SUBJECT TO THE MASSACHUSETTS EMPLOYMENT SECURITY LAW
BY CITY AND TOWN

TOTAL ANNUAL PAYROLL, AVERAGE ANNUAL WAGE, NUMBER OF ESTABLISHMENTS, AVERAGE ANNUAL EMPLOYMENT
BY MAJOR INDUSTRY DIVISION

Beginning 1967 - 1979

Year	Total Annual Payroll In 000's \$	Average Annual Wage	Number Establishments	AVERAGE ANNUAL EMPLOYMENT								
				Total Employment	Agriculture Forestry Fisheries	Mining	Contract Construction	Manufacturing	Trans. Comm. Utilities	Wholesale And Retail Trade	Finance Insurance Real Estate	Services
1967	\$ 6,952.5	\$4,752	177	1,463	9	0	349	480	73	423	11	119
1968	8,378.0	5,350	182	1,566	11	0	394	460	97	456	14	133
1969	8,890.3	5,478	189	1,623	12	0	416	413	116	511	12	143
1970	9,751.5	6,164	181	1,582	14	0	383	464	126	475	11	110
1971	8,669.4	6,689	180	1,296	17	0	411	113	133	510	11	101
1972*	8,743.3	6,619	183	1,321	16	0	414	114	137	525	10	105
1973	10,330.8	7,052	207	1,465	19	0	480	131	143	573	19	100
1974	11,001.4	7,111	232	1,547	15	0	446	163	130	643	22	128
1975	10,546.4	7,370	233	1,431	13	0	329	156	110	688	26	109
1976	11,561.4	7,804	242	1,479	10	0	302	188	115	673	27	124
1977	12,506.0	7,802	252	1,604	1	0	372	218	108	744	26	135
1978	14,475.4	8,334	271	1,737	3	0	392	272	118	782	32	137
1979	16,297.7	9,176	277	1,776	2	0	428	260	118	799	31	138
1980												
1967	\$ 124.8	\$4,027	12	31	0	0	15	0	8	1	0	7
1968	173.4	4,447	14	39	0	0	22	0	6	2	0	9
1969	221.5	5,680	14	39	0	0	21	0	8	3	0	7
1970	228.5	6,925	13	33	0	0	19	0	8	3	0	4
1971	390.9	8,145	14	48	0	0	32	0	9	1	0	6
1972*	648.1	7,904	15	82	0	0	55	0	7	3	0	17
1973	794.7	7,791	16	102	0	0	70	0	7	3	0	22
1974	615.8	8,322	15	74	0	0	50	0	6	0	0	17
1975	573.6	7,967	17	72	2	0	45	1	7	1	0	16
1976	398.7	6,431	17	62	2	0	38	2	6	6	0	8
1977	444.7	7,235	19	67	4	0	36	2	7	7	0	11
1978	657.4	8,217	23	80	6	0	48	2	9	4	0	11
1979	792.5	10,709	23	74	5	0	48	2	8	6	0	5
1980												

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DIUNSTABLE 245

*Since January 1, 1972 most non profit organizations formed and operated for religious, charitable, scientific, literary, educational, or certain other purposes are covered by The Massachusetts Employment Security Law.

Table 3 (continued)

EMPLOYMENT AND WAGES IN ESTABLISHMENTS SUBJECT TO THE MASSACHUSETTS EMPLOYMENT SECURITY LAW

BY CITY AND TOWN

TOTAL ANNUAL PAYROLL, AVERAGE ANNUAL WAGE, NUMBER OF ESTABLISHMENTS, AVERAGE ANNUAL EMPLOYMENT
BY MAJOR INDUSTRY DIVISION

Beginning 1967 - 1979

Year	Total Annual Payroll in 000's \$	Average Annual Wage	Number Establishments	AVERAGE ANNUAL EMPLOYMENT								Services
				Total Employment	Agriculture Forestry Fisheries	Mining	Contract Construction	Manufacturing	Trans. Comm. Utilities	Wholesale And Retail Trade	Finance Insurance Real Estate	
LITTLETON 246												
1967	\$ 8,369.3	\$5,776	78	1,449	17	0	45	1,069	31	259	2	26
1968	7,858.5	6,101	73	1,288	18	0	46	917	32	247	1	27
1969	8,017.0	6,681	65	1,203	20	0	30	839	31	250	1	34
1970	9,273.5	7,741	72	1,198	17	0	27	797	31	266	1	58
1971	10,871.5	8,454	73	1,286	24	0	30	813	31	303	4	82
1972	10,151.3	8,617	77	1,178	25	0	33	690	32	303	4	92
1973	12,496.4	8,708	94	1,435	32	0	31	887	34	326	6	119
1974	13,386.8	9,226	93	1,451	31	0	42	881	45	285	7	160
1975	10,070.8	9,057	104	1,112	36	0	29	635	41	286	4	81
1976	11,624.0	9,631	103	1,207	42	0	36	689	66	303	7	66
1977	14,904.5	9,897	116	1,507	40	0	49	917	92	338	7	64
1978	21,279.6	10,824	120	1,966	116	0	50	1,223	72	388	17	101
1979	26,800.1	11,453	133	2,340	120	0	88	1,385	47	506	18	176
1980												
TEWKSBURY 247												
1967	\$ 9,237.2	\$5,306	176	1,741	9	0	181	768	151	499	13	120
1968	12,250.5	5,437	205	2,253	11	0	185	1,106	109	697	13	133
1969	13,807.7	6,099	213	2,264	9	0	174	956	102	860	13	150
1970	16,935.5	6,670	215	2,539	11	0	166	1,179	97	919	13	154
1971	18,862.8	7,191	219	2,623	27	0	172	1,253	112	902	17	140
1972	23,141.7	7,282	223	3,178	28	0	225	1,328	128	962	19	488
1973	32,441.4	7,998	236	4,056	25	0	255	1,766	134	1,157	43	677
1974	35,355.6	8,764	239	4,034	25	0	214	1,862	137	1,332	52	412
1975	36,779.0	9,402	234	3,912	3	0	124	1,667	218	1,417	46	438
1976	43,111.0	9,881	249	4,134	3	0	144	1,895	268	1,576	46	500
1977	52,760.2	10,704	248	4,929	2	0	167	2,341	243	1,612	51	513
1978	45,114.5	9,668	268	4,741	76	0	165	2,148	234	1,511	72	536
1979	57,892.8	10,512	283	5,507	69	0	164	2,753	236	1,605	75	605
1980												

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THE COMMONWEALTH OF MASSACHUSETTS
DIVISION OF EMPLOYMENT SECURITY
Table 3 (continued)
EMPLOYMENT AND WAGES IN ESTABLISHMENTS SUBJECT TO THE MASSACHUSETTS EMPLOYMENT SECURITY LAW
BY CITY AND TOWN

TOTAL ANNUAL PAYROLL, AVERAGE ANNUAL WAGE, NUMBER OF ESTABLISHMENTS, AVERAGE ANNUAL EMPLOYMENT
BY MAJOR INDUSTRY DIVISION

beginning 1907 - 1979

Year	Total Annual Payroll in 1000's \$	Average Annual Wage	Number Establishments	AVERAGE ANNUAL EMPLOYMENT							
				Total Employment	Agriculture Forestry Fisheries	Mining	Contract Construction	Manufacturing	Trans. Comm. Utilities	Wholesale And Retail Trade	Finance Insurance Real Estate

TYNGBOROUGH 248

1967	\$ 915.7	\$3,999	47	229	0	0	21	4	9	122	9	65
1968	903.3	3,980	47	227	0	0	21	4	11	120	10	62
1969	993.9	3,794	44	262	0	0	20	13	10	134	11	72
1970	1,250.7	4,451	47	281	0	0	27	25	4	138	13	73
1971	1,245.9	4,755	48	262	0	0	23	28	6	117	15	74
1972*	1,544.4	5,097	51	303	0	0	31	122	5	122	14	79
1973	3,205.7	4,770	56	672	2	0	49	376	0	138	15	92
1974	3,763.4	6,070	57	620	1	0	39	327	0	128	14	111
1975	3,801.3	6,919	64	561	1	0	39	245	1	138	17	119
1976	5,925.0	7,462	61	794	0	0	58	452	2	155	18	109
1977	6,348.1	8,266	65	768	0	0	64	401	2	165	18	118
1978	5,361.1	9,149	77	586	1	0	43	223	4	165	16	135
1979	5,895.0	9,225	81	639	2	0	66	225	6	175	17	148
1980												

WESTFORD 249

1967	\$ 8,452.0	\$6,003	87	1,408	5	28*	146	970	21	138	1	98
1968	9,423.2	6,363	93	1,481	3	21	181	993	25	144	1	112
1969	10,423.0	6,716	94	1,552	2	25	191	1,013	32	168	1	120
1970	11,355.8	7,210	99	1,575	0	26	186	1,072	38	145	0	108
1971	11,843.6	7,486	105	1,582	1	22	220	1,059	10	163	0	107
1972*	12,938.1	7,913	101	1,635	1	20	238	1,038	40	182	0	116
1973	14,235.5	8,369	117	1,701	0	18	219	1,055	50	220	14	126
1974	14,989.5	8,435	130	1,777	2	18	185	1,111	50	251	14	146
1975	15,726.8	8,956	140	1,756	3	18	160	1,074	44	280	12	165
1976	16,780.9	9,790	145	1,714	6	8	159	1,044	35	278	12	172
1977	18,681.7	10,687	160	1,749	8	6	163	1,077	22	280	14	179
1978	21,522.9	11,054	168	1,947	8	6	200	1,156	38	296	18	223
1979	24,927.2	11,909	193	2,093	9	7	230	1,222	38	323	22	242
1980												

*Since January 1, 1972 most non-profit organizations formed and operated for religious, charitable, scientific, literary, educational, or certain other purposes are covered by The Massachusetts Employment Security Law.

Table 4
Nonagricultural Wage and Salary Employment
Annual Averages - Lowell LMA
1971-1980
(in 000's)

Industry	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Nonagricultural - Total	56.1	58.9	61.8	61.4	59.4	62.4	65.3	68.6	74.6	76.4
Manufacturing - Total	19.7	20.7	22.8	22.0	19.9	20.8	21.9	23.1	26.1	27.9
Durable Goods - Total	8.3	8.5	10.0	10.3	9.4	9.3	10.7	12.0	INA	INA
Nondurable Goods - Total	11.4	12.2	12.8	11.7	10.5	11.5	11.2	11.1	INA	INA
Food	1.4	1.4	1.5	1.3	1.1	1.1	1.1	1.0	INA	INA
Textiles	2.9	3.2	3.5	2.9	2.6	3.0	3.0	3.0	INA	INA
Apparel	1.5	1.6	1.6	1.4	1.0	1.1	1.1	1.0	INA	INA
Printing	2.4	2.5	2.6	2.5	2.4	2.3	2.4	2.5	INA	INA
Leather	1.3	1.2	1.2	1.1	1.2	1.4	1.3	1.4	INA	INA
Other Nondurables	1.9	2.3	2.4	2.5	2.2	2.6	2.3	2.2	INA	INA
Nonmanufacturing - Total	36.4	38.2	39.0	39.4	39.5	41.6	43.4	45.5	48.8	48.5
Contract Construction	2.8	3.2	3.1	2.6	2.1	2.2	2.4	2.4	2.8	2.7
Transportation, Communi- cations, & Utilities	2.4	3.0	2.9	3.0	2.9	3.0	3.0	3.1	3.2	3.3
Wholesale & Retail Trade	11.8	12.0	12.5	12.7	13.0	13.5	14.2	15.1	15.5	15.6
Finance, Insurance and Real Estate	1.6	1.6	1.9	1.9	1.9	1.9	2.1	2.1	2.0	2.1
Services, Misc., and Mining	9.3	9.5	9.5	9.5	9.5	9.9	10.3	10.4	11.9	12.5
Government	8.5	8.9	9.1	9.7	10.1	11.1	11.4	12.4	13.1	12.3

Source: 790 Reports (using 1972 SIC Codes)

Analysis and Probable Outlook by Industry Division

During the past few years the Lowell LMA's employment growth has disproportionally occurred in the manufacturing division particularly in the durable goods sector. This, of course, is due to the growth of the area's high technology industries. Since high technology firms manufacture computers, instruments, and defense-related products, this sector should continue to show strength. However, the Lowell LMA's future strength maybe as much related to the skills in the labor force as the advantage it currently enjoys as a hub for high technology research, development, and production.

Defense spending increases should augment the already strong durable goods sector (the driving force behind manufacturing growth). By the end of 1981, manufacturing could account for 40 percent of the LMA's total nonagricultural employment with the durable goods subsector accounting for more than 25 percent of the total. Non-durable goods, which should grow in absolute terms, will probably shrink slightly as a percentage of total LMA employment.

Nonmanufacturing employment has not had as impressive a rate of growth as manufacturing over the past three years (see Table 5). While nonmanufacturing employment has grown 9.8 percent in absolute terms since 1977, it has declined from 64.3 to 61.6 percent of the area's total nonagricultural employment.

What follows will be an analysis of nonmanufacturing industries by industry division. Contract construction's weak area will continue to be housing. Extremely high interest rates as well as high labor and material prices should continue to thwart single family housing starts. Multi-unit dwellings and continuing renovation in downtown Lowell will continue to comprise the bulk of residential construction. However, large scale commercial projects such as the Wang Tower, Digital Headquarters, Prince Macaroni Engineering Division, Lowell's downtown hotel, as well as several other additions and expansions should lead to increases in this division's employment.*

Transportation, communication, and utilities, which has experienced almost no real growth, is not likely to grow in absolute terms or to reverse its contracting share of total nonagricultural employment.

* Both MIFA loans and UDAG grants have stimulated industrial construction.

Wholesale and related trade, whose share of total employment has decreased fractionally for the last three years can expect some of the same. However, retail trade, should experience some growth in absolute terms particularly in downtown Lowell, as the Lowell Development Program carries forward. Renovation and expansion at Jordan Marsh, Cherry Webb, as well as other downtown retailers should add to employment totals. There may be some shifting in the ratio from full-time to part-time employment.

Finance, Insurance and Real Estate, with static totals and a declining share of overall employment, is likely to experience no more than a moderate growth in banking and insurance and no growth in real estate.

Services have been the only nonmanufacturing division in the Lowell LMA to expand its share of area employment over the past three years and this should continue. However, all service industries will probably not participate in the increases. Business services, particularly janitorial services, equipment rental firms, and employment agencies should continue to have steady growth. Hotel employment will obviously increase with the completion of the downtown Lowell hotel.

Demographic factors, (end of baby boom) as well as public policy (Proposition 2 $\frac{1}{2}$), should significantly curtail employment in the educational services industry.

Government will be the hardest hit. Local government's share of total employment, already declining in 1980 for reasons mentioned above, should continue to decline. Federal and state government, which had held their own in 1980, will see both levels and shares of employment decline due to Federal budget cuts, elimination of CETA Public Service Employment and further effects of Proposition 2 $\frac{1}{2}$. As of this writing it is difficult to estimate the magnitude of the cutbacks.

Table 5
Percent of Total Nonagricultural Employment
Lowell IMA - 1978-1980

	Y e a r s					
	1978		1979		1980	
	Number	Percent	Number	Percent	Number	Percent
Nonagricultural - Total	64783	100.0	72925	100.0	74276	100.0
Manufacturing-Total	23127	35.7	27362	37.5	28549	38.4
Durable Goods	12024	18.6	16000	21.9	17890	24.1
Nondurable Goods	11103	17.1	11362	15.6	10659	14.4
Nonmanufacturing - Total	41656	64.3	45563	62.5	45727	61.6
Contract Construction	2564	4.0	2888	4.0	2688	3.6
Transportation, Communication, Utilities	2604	4.0	2632	3.6	2656	3.6
Finance, Insurance and Real Estate	2083	3.2	2009	2.8	2011	2.7
Service	9959	15.4	11158	15.3	11600	15.6
Wholesale Trade	2025	3.1	2372	3.3	2336	3.1
Retail Trade	13033	20.1	13608	22.0	13684	18.4
Government						
Federal	455	0.7	524	0.7	547	0.7
State	1710	2.6	2258	3.1	2276	3.1
Local	7223	11.1	8114	11.1	7929	10.7

V. Employment Developments and Outlook by Occupation

Table B07 (see Appendix) Job Openings Received and Filled by Occupational Category and Hourly Wage Rates indicates that the highest percentages of unfilled openings exists at both the lower and upper ends of the wage continuum. Only 26.6 percent of the jobs under \$3.10 per hour and 52.5 percent of the jobs in the \$3.10 to \$3.34 bracket were filled. As we move up from these minimum wage jobs, we find 72.1 percent of the jobs in the \$3.35 to \$3.49 range were filled. At the higher end of the spectrum, we find that 45.2 percent of the jobs in the \$5.00 to \$5.49 bracket were filled. The percentage of filled jobs then decrease to 25.9 percent for jobs in the \$5.50-\$5.99 bracket and finally to 20.9 percent for jobs paying over \$6.00 per hour.

This disequilibrium at both ends of the hourly continuum does not defy explanation. For the lower paying jobs it seems that the high percentage of unfilled orders is due to the fact that many of these jobs are in the secondary labor market (characterized by low wages, limited upgrading possibilities, and high turnover). For the higher paying jobs, the inability of labor supply to clear the market appears to be due to the rapid expansion of high technology and the consequent shortage of trained manpower.

Openings Received and Filled by Industrial Division and Occupational Category (Table 10 ESARS in Appendix) supports the conclusion drawn from the analysis of Openings by Wage Rate. Of all industrial divisions, manufacturing has the lowest overall "Fill Rate" with 40.0 percent. Within manufacturing, the disequilibrium is particularly acute for professional, technical, and managerial jobs where the fill rate is only 5.5 percent. The occupational categories of both the machine trades and benchwork also had relatively low fill rates reflecting the tightness in the labor market brought on by rapid growth in high tech industries.

Equating Applicants and Job Openings (Table 96 ESARS) for the Lowell LMA with the state as a whole reveals some interesting comparisons. While Lowell trails the state in percentage of openings filled with 51.2 to 63.0 overall, it falls much further behind in percentage of professional jobs filled with 20.0 percent as compared to 68.1 percent. This disparity is not explained by the professional applicants as a percentage of total applicants which is only slightly higher for the State (12.8 percent) than for the Lowell LMA (10.9 percent). The Lowell LMA also has slightly lower percentage of orders unfilled over 30 days (70.4 percent) compared with 74.8 percent for the state as a whole.

As might be expected Lowell has a slightly lower percentage of minority group applicants (11.6 percent) than the state (15.8 percent).

Two relatively new special reports focus on the supply and demand for labor. Both are statewide in scope. The Job Openings Survey (JOS) is the newest occupational employment program. JOS is a pilot program designed to test a system for collecting data on vacancies currently available. Data in this cooperative Federal-state program is collected on a quarterly basis from the sample of 1,200 firms. A summary of JOS findings is included in the appendix of this report.

High Demand Occupations in Massachusetts - 1981 contains information on 50 separate occupations arranged alphabetically by occupation. The occupations selected are projected to grow at a relatively fast rate and/or employ large numbers of individuals in the state. The occupational information includes typical job duties, working conditions, wages, promotional opportunities and educational or training requirements. The report also contains information on major industries employing people in a particular occupation. An Alphabetical Index of High Demand Occupations is included in the appendix as well as an Index of High Demand Occupations by Major Occupational Clusters.

Labor Supply/Demand Imbalances

Information regarding labor supply and demand is available through analysis of Job Matching Activities and ESARS Tables. From the system we are able to obtain a monthly occupational breakdown of openings along with some wage data concerning these openings.

Job matching is a computerized system available throughout Massachusetts to match people with jobs and jobs with people. This sophisticated program serves the needs of a highly mobile work force by matching requests of both employers and workers against all appropriate files and not just those in local offices. The Employment Service Automated Reporting System (ESARS), which is the computerized information gathering system for applicants, can be considered to be the supply side of the job market.

Although analysis of this data is useful when studying labor market conditions, certain limitations of the data should be noted. Both Job Matching and ESARS give information on only those openings and applicants that come into the Job Service Offices, thus reflecting only a portion of the market.

As of March 31, 1981, 2,233 active job applications were on file in the Lowell Job Matching Service Office, of these applicants, some 803 (35.9 percent) were Female, 190 (8.5 percent) belonged to a minority group and 369 (16.5 percent) were described as being economically disadvantaged.

The age cohorts of the active applicants were: 27.0 percent under 22; 47.8 percent 22 to 44; and 15.1 percent 45 and older with 20.2 percent of all applicants being veterans.

The largest group of applicants 1,148 (20.1 percent) were seeking clerical and sales jobs; 430 (19.3 percent) were in miscellaneous occupations; followed closely by professional, technical and managerial with 328 people (14.7 percent); structural work accounted for 254 applicants (11.4 percent), and services totaled 242 (10.8 percent). These five groups accounted for just over three-quarters of all applicants.

There were 1,814 openings for nonagricultural jobs in the Lowell LMA listed with the job service between October 1980 and March 31, 1981. Some 872 (48.1 percent) were filled and 892 (49.2 percent) remained open. The ratio of active applicants to unfilled job openings was 2.5 to 1.

The average wages of the unfilled job openings were comparable to those in which applicants were placed. Slightly over 70.0 percent of the unfilled openings remained unfilled 30 days or longer, a reflection of the tightness in the Lowell LMA job market.

An examination of occupations with a low ratio of applicants to unfilled job orders reveals two situations where jobs are particularly hard to fill. First, there are those occupations such as kitchen worker, security guard, laundry worker, and garment worker. These jobs are in industries characterized as being in a secondary labor market. The industries are highly competitive, have a high labor turnover and a high ratio of labor cost to total cost. These occupations have comparatively low wages and limited upgrading possibilities. Usually these openings are attractive to individuals entering the labor market. The second group of jobs with a particularly low ratio of applicants to openings was found in assembly and repair of electronic components and electrical equipment as well as structural work occupations in the fabrication, installation and repair of electrical and electronic products. The difficulty in filling these openings is due to supply/demand imbalances caused by rapid expansion in the high technology area. This highlights one of the strongest demands in the labor area.

Table 6
Occupational Characteristics of Applicants Registered
At Job Matching Service Center
Lowell Labor Market Area
March 1981

Occupational Code, Category and Occupational Title	Total Applicants Fiscal Yr.	Total Active Applicants	Unfilled Job Openings	Ratio Of Active Applicants To Unfilled Job Openings
0-1 <u>Professional Technical and Managerial Work</u>	888	422	65	6.5/1
Electrical Technician	16	8	8	1/1
Teacher, Secondary	20	10	2	5/1
Teacher, Elementary	30	13	1	13/1
Accountant	27	13	1	13/1
Manager, Retail Store	57	12	0	--
2 <u>Clerical and Sales</u>	2,188	805	274	2.9/1
Secretary	100	45	10	4.5/1
Clerk, Typist	108	56	11	5.1/1
General Clerk	220	92	15	6.1/1
Receptionist	56	27	2	13.5/1
Salesperson, General	37	17	0	--
Sales Clerk	64	28	1	28/1
3 <u>Service</u>	1,246	691	106	6.5/1
Counter Attendant, Lunchroom	44	25	0	--
Nurse Aid	129	81	5	16.2/1
Security Guard	133	48	44	1.1/1
Janitor	71	30	1	30/1
4 <u>Agriculture, Fishery, Forestry</u>	105	52	64	0.8/1
5 <u>Processing</u>	176	87	8	10.9/1
6 <u>Machine Trades</u>	1,044	547	74	7.4/1
Machinist	24	11	1	11/1
Automobile Mechanic	50	21	10	2.1/1
Maintenance Mechanic	20	10	2	5/1
7 <u>Benchwork</u>	1,044	547	74	7.3/1
Electronics Inspector	24	15	0	--
Electronics Assembler	495	230	26	8.8/1
8 <u>Structural Work</u>	723	331	75	4.4/1
Sheet Metal Worker	18	9	11	0.8/1
Painter	31	17	8	2.1/1
Carpenter	51	17	7	7.4/1
Construction Worker	71	21	6	3.5/1
Maintenance Repairer	60	28	5	5.6/1
9 <u>Miscellaneous</u>	1,604	594	49	12.1/1
Truck Driver, Heavy	88	39	0	--
Bus Driver	28	17	1	17/1
Packager, Hand	379	169	19	8.9/1
Material Handler	249	86	11	7.8/1

Table 7
 Characteristics of Applicants Registered
 At Job Matching Service Centers
 March 1981

Local Office	Total Active Appli- cants	Female	Econom. Disadv.	Veteran	Nonwhite Minority	Age Breakdown		Handi- capped
						Under 22	Over 45	
Lowell	6,701	2,543	945	1,140	509	2,075	935	379
Lowell WIN	2,475	1,942	2,451	117	451	228	363	284
Lowell CETA	43	12	35	6	10	9	3	4

Individuals in Need of Employment Service

Individuals with low skill and educational levels as well as skilled and educated people who are displaced due to a change in technology or public policy, comprise those currently most in need of Employment Service.

Low educational levels and lack of job skills correlate with high unemployment and low incomes, both of which are found among the economically disadvantaged. The economically disadvantaged are defined as members of families receiving welfare payments, or whose annual incomes in relation to family size and location does not exceed the most recently established poverty level determined by the Office of Management and Budget.

Training

CETA offers a number of different types of employment and training opportunities for the economically disadvantaged, unemployed, and underemployed. Titles IIB and IIC provide classroom training, OJT work experience and educational services for the economically disadvantaged. The IIC and Title VI were Public Service employment programs, providing counter cyclical employment during periods of high unemployment. These will not be continued in the coming Fiscal Years.

Vocational-Technical Schools serving the Lowell LMA:

1. Greater Lowell Vocational-Technical School serving Lowell, Dracut, Tyngsboro, and Dunstable
2. Nashoba Valley Technical School serving Westford, Chelmsford, Littleton, Groton, Pepperell, Townsend and Shirley
3. Shawsheen Valley Vocational-Technical School serving Billerica, Tewksbury, Bedford, Burlington, and Wilmington

Community Colleges serving the Lowell LMA:

1. Northern Essex Community College, Haverhill, MA
2. Middlesex Community College, Bedford, MA.

VI. Recent Unemployment Trends and Projections

Annual averages for 1980 placed the Lowell LMA's unemployment rate at 5.7 percent, one-tenth of a point higher than the statewide rate but well below the national average of 7.1 percent. Table 8 gives a clear indication of the turnabout experienced by the area's economy in recent years. From the nadir of the 1975 recession with an unemployment rate of 11.9 percent, the Lowell LMA's rate has fallen 6.2 percentage points, compared with a drop of 5.6 percentage points statewide and 1.4 percentage points nationally. In fact, 1979 was the first year in which Lowell's rate fell below the national rate.

After finishing out 1979 with a December unemployment rate of 4.7 percent, there was substantial rise of 1.7 percentage points in the January 1980 rate, due largely to post holiday seasonal declines in trade and services, as well as declines in finance, insurance and real estate. The rate then dropped steadily to 4.6 percent in April, before beginning a seasonal ascent to 5.7 percent in May. Unemployment peaked in June, at 6.9 percent, as a result of the influx of students as yet unable to secure summer jobs combined with the first effects of the nationwide recession. After hovering slightly above 6.0 percent throughout the summer, the unemployment rate reached a final seasonal peak of 6.4 percent in September, before declining steadily to 4.3 percent in December, the lowest monthly rate ever recorded for the Lowell LMA.

Table 8
1980 and 1979 Annual Averages
For
Labor Force, Employment, Unemployment and Unemployment Rates
For
Lowell LMA and Lowell CETA Prime Sponsor

Period	Labor Force	Employment	Unemployment	Unemployment Rate
<u>1980</u>				
January	120,765	112,995	7,770	6.4
February	119,127	112,499	6,628	5.6
March	119,564	113,529	6,035	5.0
April	118,804	113,670	5,473	4.6
May	120,565	113,932	6,895	5.7
June	121,872	113,459	8,413	6.9
July	121,684	114,218	7,466	6.1
August	123,630	115,649	7,711	6.3
September	122,044	114,258	7,786	6.4
October	124,173	116,830	7,343	5.9
November	122,591	116,786	5,805	4.7
December	122,756	117,752	5,273	4.3
<u>Average</u>	121,442	114,856	6,883	5.7
<u>1979</u>				
January	118,972	109,902	9,070	7.6
February	117,665	110,660	7,005	6.0
March	117,332	109,921	7,401	6.3
April	117,931	111,855	6,076	5.2
May	115,970	110,060	5,910	5.1
June	120,354	113,918	6,436	5.3
July	120,769	114,737	6,032	5.0
August	121,233	115,278	5,955	4.9
September	120,546	112,612	7,934	6.6
October	116,533	111,144	5,389	4.6
November	117,483	111,237	6,246	5.3
December	117,827	112,348	5,479	4.7
<u>Average</u>	118,551	111,973	6,578	5.5

Table 9
Labor Force Statistics by Cities and Towns
Lowell LMA
1980 Annual Averages

City/Town	Labor Force	Employment	Unemployment	Unemployment Rate
Billerica	16,350	15,516	834	5.1
Chelmsford	16,723	15,996	727	4.3
Dracut	11,124	10,447	677	6.1
Dunstable	725	641	84	11.6
Tewksbury	11,411	10,750	661	5.8
Tyngsboro	2,487	2,370	117	4.7
Westford	5,703	5,337	366	6.4
Lowell	56,920	53,502	3,418	6.0

Table 10
Unemployment Insurance Claims Activity
Lowell LMA
1980

Month	Initial Claims	Continued Weeks Claimed
January	300	2747
February	355	2609
March	269	2446
April	306	2119
May	400	2205
June	401	2212
July	311	2853
August	294	2640
September	244	2144
October	279	1900
November	286	2068
December	416	2345

Table 11
 Characteristics of Insured Unemployed
 By Place of Residence and By Race
 March 1981

Town	White	Nonwhite	Spanish Surname	Not Coded	Other	Total
Billerica	291	2	0	0	4	297
Chelmsford	247	0	0	0	0	247
Dracut	282	0	1	0	2	285
Dunstable	16	0	0	0	0	16
Tewksbury	186	1	0	0	2	189
Tyngsboro	81	0	0	0	0	81
Westford	86	0	0	1	1	88
Lowell	983	16	14	2	7	1,022
<u>TOTAL</u>	2,172	19	15	16	3	2,225

Labor Turnover

Labor turnover measures the overall flow of manufacturing workers into and out of jobs. The estimate is derived from a sample of employees who report on a monthly basis. Quit and layoff rates move in a regular fashion over the business cycle. Therefore movements in these rates generate information about the current state of the labor market. As the labor market deteriorates, quits fall and layoffs rise. As a consequence the percentage of unemployment due to job loss is higher when the labor market is weak. Quit and layoff rates are also considered be "leading indicators" that signal the future direction of the economy.

The rates can be seen as indicators of both employer and worker periephous of the labor market. The quit rate can be seen as an example of how workers perceive the availability of jobs. An inverse correlation exists between the quit and layoff rates with the quit rate decreasing as the unemployment rate increases. Analysis of new hires, layoffs, and recalls indicate how employers perceive future economic conditions. A downturn will usually cause a contraction in employment through attrition, layoffs, and curtailment of new hiring.

Between January 1980 and January 1981 the quit rate for the Lowell LMA (shown in Table) rose slightly as the layoff rate declined slightly. This is consistent with both the reciprocal nature of the relationship between the two rates and continuing robust health of the Lowell LMA's economy.

Table 12
Labor Turnover Rates
Lowell LMA

Month and Year	Manufacturing Employment	Accession Rates			Separation Rates		
		Total	New Hire	Recalls	Total	Quit	Layoff
January 1980	27,200	7.8	6.8	0.4	4.4	2.9	0.8
January 1981	28,100	5.3	5.2	0.1	4.0	3.1	0.5

Definitions

<u>Labor Turnover</u>	Refers to the gross movement of wage and salary workers into and out of jobs with respect to individual firms. Data are accumulated for a calendar month and expressed as a rate per 100 workers.
<u>Total Accessions</u>	All permanent or temporary additions, whether new or former employees.
<u>New Hires</u>	Permanent or temporary additions of persons who have not been specifically recalled by the employer, or transferred from another establishment of the same company.
<u>Recalls</u>	Permanent or temporary additions to the employment roll of persons specifically recalled to a job in the same establishment of the company following a period of layoff lasting more than seven consecutive days.
<u>Total Separations</u>	Terminations of employment resulting from: quits, discharges, layoffs, transfers out to another establishment of the same company, military duty and miscellaneous causes.
<u>Quits</u>	Terminations of employment initiated by employee for any reason except to retire, to transfer to another establishment of the same company, military duty and miscellaneous causes.
<u>Layoffs</u>	Suspensions from pay status (which last or are expected to last more than 7 consecutive calendar days) initiated by the employer without prejudice to the worker for such reasons as lack of orders, model changeover, termination of seasonal employment, etc.

A P P E N D I X

IV. Job Openings Survey

The most recent tool in identifying occupations that are in demand by industries is the Job Openings Survey (JOS) initiated in Massachusetts in 1979. The survey represents the only available comprehensive source of actual current job openings. It yields estimates of the intensity of demand for workers in various occupational groups as well as relating this demand for workers to other variables such as unemployment, new hires, part time openings, future openings, hard to fill openings, size of establishment, and completions from training programs.

The JOS in Massachusetts collected its data from a stratified random sample of approximately 1,200 private nonagricultural wage and salary establishments (drawn from ES 202 files) by mailing printed schedules to them.

Summary of JOS Findings

The first three rounds of the statewide pilot JOS survey produced an overall vacancy rate of 3.1 percent, with job vacancy rates in selected occupations ranging from a high of 13.3 percent for machinists to a low of 0.6 percent for civil engineers. The 3.1 percent vacancy rate can be considered the median point between high and low rates. A high vacancy rate does not mean that an occupation has a high number of openings. The relationship of the job vacancy rate to the number of openings depends on the employment base of the occupation. However the job vacancy rate is a better measure of demand for certain occupations than is the number of job openings.

Professional, technical, managerial, sales and clerical occupations represented 46.7 percent of all openings in the survey. Some closely related groups of occupations such as computer, mathematical, and research occupations experienced a high vacancy rate (7.7 percent). This may actually represent an undercount because of a low response rate among large high technology establishments.

Vacancy rates among health occupations are high: licensed practical nurses 6.6 percent, therapists and dieticians 7.8 percent, and registered nurses 9.9 percent. A common reason for vacancies among nurse aides and orderlies (6.2 percent) is the high turnover due to low pay and difficult shifts.

Computer related data typists had the highest vacancy rate among clerical occupations (5.4 percent). However, technological changes leave the outlook mixed. Although some losses will occur due to automation, there will still be a replacement demand among typists (2.5 percent) and bookkeepers and accounting clerks (1.9 percent). Considering the large size of the employment base (80,000 statewide), it is noteworthy that the vacancy rate for secretaries (3.3) is higher than the overall vacancy rate (3.1)

Machinery occupations had the highest vacancy rate in the manufacturing area. Machinists led the way with 13.3 percent followed by tool and die makers at 6.4 percent. A lower vacancy rate for machine operators (2.5) is probably due to ambiguous job definitions overstating the vacancy rate for machinists. Nevertheless, machinists occupations have the highest vacancy rate in the survey with a high replacement demand as well.

Of the two major industrial divisions, manufacturing had 31.0 percent of employment with 28 percent of the openings and a 2.8 percent vacancy rate. Nonmanufacturing with 69 percent of employment had 72 percent of the openings and a 3.2 percent vacancy rate. Manufacturing had a higher percentage of the harder to fill openings which resulted from skill shortages in many technical as well as professional occupations.

With respect to vacancy rates and openings versus the size class of the employer, the smaller size classes contain the vast majority of establishments while the larger size classes (250 plus) account for more than 40 percent of total employment. The heaviest concentration of openings were in size classes ranging from 20 to 249 employees.

The concentration of job openings dropped off sharply above this level. Units with 1,000 or more employees accounted for 21 percent of employment but only 12 percent of openings. Generally smaller size classes had the high vacancy rates ranging from almost 10 percent for units with 1-3 employees to 1.8 percent for establishments with more than 1,000 employees.

Vacancy Rates by Occupational Group

For the purpose of highlighting occupations suitable for vocational training, it is helpful to analyze the vacancy rates for certain groups of occupations. The vacancy rates were calculated by dividing the number of job openings for an occupation by the sum of employment plus job openings. Thus $JVR = JO / JO + E$. A high vacancy rate does not necessarily mean a high number

Machinery Occupations

Machinists achieved the highest vacancy rate in the entire JOS, 13.3 percent, which was five times higher than the 2.5 percent rate for machine operators. This could be due to a difference between employer job definitions and survey job definitions which resulted in putting machine operator openings in the machinist category. The difference between the two occupations is that machinists can set up and adapt a machine to specific operations while operators are involved in tending an already set up machine. In the Lowell LMA, persons with the title machinist who work in large firms, frequently performed the duties of machine operator. While there may be an overstatement of the machinist vacancy rate, regardless of duties, most employers require a good vocational education, work experience, or both for their machinist openings.

Additional evidence that the machining occupations are fruitful ground for vocational training is reflected in both the high vacancy rate of 6.4 percent for skilled tool and die makers as well as the large number of openings for machine operator's jobs, which topped the list of 40 occupational categories in total number of openings despite having a low vacancy rate.

Other Production Workers

Welders, cutters, and assemblers have a fairly high vacancy rate (4.1) among the production occupations. As with machinists there is a high replacement demand for welders. The 4.2 percent vacancy rate for assemblers is linked to the growth of high technology firms and the need to assemble components.

Mechanics and Repairers

The vacancy rate of 4.3 percent indicates a fair demand for mechanics and repairers. This group does not include auto mechanics and telephone repairers.

Service Occupations

Service occupations involved with the preparation and serving of food had the highest vacancy rates with cook and waiter/waitress having rates of 5.4 and 3.8 percent respectively. These occupations are expected to be in demand through the 1980's. However some jobs in this area are considered to be in the "secondary labor market" due to their low pay, lack of career advancement and high turnover. In addition, the JOS survey indicated that 80 percent of these openings were part time.

of job openings. The key figure is the employment base of the occupation, with the job vacancy rate a better measure of demand than the number of openings for occupations that are more selective.

Technologists and Technicians Except Health

This group includes engineering technicians, drafters, surveying technicians, scientific technicians etc. This groups overall vacancy rate of 4.5 percent is probably low in terms of the impact of the growing high technology industries in the state, which were somewhat underrepresented in the JOS. While the survey was not set up to give detailed information on various types of technicians, the JOS report surmises from experience with the survey that a large percentage of the demand was for electronic technicians.

Clerical Occupations

Clerical occupations comprise one of the largest groups in the state. Because of their large employment bases, some occupations dominate in number of actual jobs, while having low vacancy rates. The data typist category, which includes key punch operator, magnetic tape composer operator, terminal operator, and varitype operator had a vacancy rate of 5.4 percent, highest in this category.

Although the increasing use of computerized equipment will speed up the work and eliminate routine duties, the demand for tellers should not be adversely affected. This occupation's vacancy rate of 3.8 percent reflects both a healthy replacement demand and expansion of bank services.

Secretaries and stenographers, with a substantial employment base, experienced a vacancy rate of 3.3 percent, despite the automation of many routine clerical jobs. The demand for secretaries should remain high because the positions require public contact and organizational skills.

Vacancy rates of the other clerical occupations fell below the overall rate (mid-point) of 3.1 percent. Most openings here should come from replacement needs. While typists, bookkeepers, accounting clerks, and "other" clerical show low vacancy rates, their large employment bases should be remembered.

TABLE B07
JOB OPENINGS RECEIVED AND FILLED BY OCCUPATIONAL CATEGORY AND HOURLY WAGE RATE

TABLE B07

MASSACHUSETTS

03/31/81

SMSA 4560

ITEM NO	ITEM	TOTAL	UNDER \$3.10	\$3.10 - \$3.34	\$3.35 - \$3.49	\$3.50 - \$3.99	\$4.00 - \$4.49	\$4.50 - \$4.99	\$5.00 - \$5.49	\$5.50 - \$5.99	\$6.00 & AVERAGE OVER	OTHER*	
A	B	C	D	E	F	G	H	I	J	K	L	M	N
OPENINGS RECEIVED													
B07010	TOTAL	1939	15	354	451	320	391	113	115	27	148	4.08	5
B07015	0-1	117	2	1	0	8	6	10	13	10	66	7.31	1
B07020	20-24	471	5	147	90	78	102	26	14	5	3	3.63	1
B07025	25-29	254	1	117	112	8	3	3	6	1	2	3.44	1
B07030	30	23	1	1	8	13	0	0	0	0	0	3.31	0
B07035	31-39	275	5	23	120	75	33	12	3	1	1	3.57	2
B07040	4	69	0	1	63	1	4	0	0	0	0	3.39	0
B07045	5	41	0	9	0	7	13	1	8	0	3	4.26	0
B07050	6	147	0	23	6	14	46	13	14	5	26	4.65	0
B07055	7	224	0	16	40	36	97	14	12	1	8	3.96	0
B07060	8	113	0	1	1	18	17	10	30	0	36	5.33	0
B07065	90-91	40	0	4	1	11	7	3	9	3	2	4.31	0
B07070	92	162	1	11	10	51	60	21	6	1	1	3.98	0
B07075	93-97	3	0	0	0	0	3	0	0	0	0	4.00	0
OPENINGS FILLED													
B07085	TOTAL	995	4	186	325	150	189	49	52	7	31	3.77	2
B07090	0-1	24	1	1	0	3	4	3	5	1	5	4.76	1
B07095	20-24	252	0	113	48	29	49	8	4	1	0	3.51	0
B07100	25-29	181	1	15	152	3	2	1	4	1	1	3.42	1
B07105	30	10	1	1	5	3	0	0	0	0	0	3.10	0
B07110	31-39	152	0	16	88	22	20	4	1	0	1	3.54	0
B07115	4	10	0	4	1	1	4	0	0	0	0	3.57	0
B07120	5	14	0	2	0	4	6	0	2	0	0	4.09	0
B07125	6	59	0	2	1	7	28	6	5	1	9	4.57	0
B07130	7	98	0	18	24	15	28	7	6	0	0	3.74	0
B07135	8	50	0	1	1	9	8	5	12	0	14	5.14	0
B07140	90-91	25	0	3	0	9	2	1	8	2	0	4.25	0
B07145	92	119	1	9	5	45	38	14	5	1	1	3.96	0
B07150	93-97	1	0	1	0	0	0	0	0	0	0	3.10	0
*1 OTHER INCLUDES WAGES NOT PAID ON A TIME BASIS.													
MONTHLY YEAR TO DATE													
FOR PERIOD ENDING 03/31/81													
PAGE 001													

TABLE 10 - ALL JOB OPENINGS RECEIVED AND FILLED BY INDUSTRIAL DIVISION AND OCCUPATIONAL CATEGORY

MASSACHUSETTS SMSA 4560

03/31/81

OPENINGS RECEIVED AND FILLED BY INDUSTRIAL DIVISION AND OCCUPATIONAL CATEGORY

TABLE 10

ITEM NO	OCCUPATIONAL CATEGORIES AND DIVISIONS	OPENINGS BY INDUSTRIAL DIVISION														TOTAL	AGR FOR & FISH	MINING	CONSTR	MFG	TRANSP & UTIL	WHS & RETAIL TRADE	FINANCE, INS & REAL ESTATE	SERVICES	PUBLIC ADMIN-ISTRATION	GOVT
		A	B	C	D	E	F	G	H	I	J	K	L	M												
OPENINGS RECEIVED																										
10010	TOTAL	1939	10	0	0	0	66	647	143	479	45	407	142	154												
10015	0-1 PROF TECH MGR	117	0	0	0	0	1	55	0	14	1	40	6	12												
10020	20-24 CLERICAL	471	0	0	0	0	5	100	127	65	33	97	44	47												
10025	25-29 SALES	254	0	0	0	0	0	5	1	239	0	9	0	0												
10030	30 DOMESTIC	23	0	0	0	0	0	0	0	2	0	21	0	2												
10035	31-39 OTHER SERVICES	275	1	0	0	0	1	20	1	52	1	172	27	27												
10040	4 FARM F & F	69	7	0	0	0	0	0	0	0	0	14	48	51												
10045	5 PROCESSING	41	0	0	0	0	4	28	0	2	0	7	0	0												
10050	6 MACHINE TRADES	147	0	0	0	0	2	119	1	17	0	8	0	0												
10055	7 BENCH WORK	224	0	0	0	0	8	198	0	4	1	2	11	11												
10060	8 STRUCTURAL	113	1	0	0	0	42	42	6	2	2	14	4	3												
10065	90-91 MOTOR FRGT, TRANSP	40	0	0	0	0	0	7	6	19	0	8	0	0												
10070	92 PKG MTRL HANDL	162	1	0	0	0	3	71	1	63	7	14	2	1												
10075	93-97 OTHER	3	0	0	0	0	0	2	0	0	0	1	0	0												
OPENINGS FILLED																										
10085	TOTAL	995	12	0	0	0	29	259	110	293	19	210	63	64												
10090	0-1 PROF TECH MGR	24	0	0	0	0	0	3	0	7	0	10	4	5												
10095	20-24 CLERICAL	252	0	0	0	0	1	36	99	29	11	53	23	21												
10100	25-29 SALES	181	0	0	0	0	0	3	1	172	0	5	0	0												
10105	30 DOMESTIC	10	0	0	0	0	0	0	0	2	0	8	0	0												
10110	31-39 OTHER SERVICES	152	1	0	0	0	1	10	0	20	1	97	22	20												
10115	4 FARM F & F	10	10	0	0	0	0	0	0	0	0	0	0	6												
10120	5 PROCESSING	14	0	0	0	0	0	9	0	1	0	4	0	0												
10125	6 MACHINE TRADES	59	0	0	0	0	1	49	1	4	0	4	0	0												
10130	7 BENCH WORK	98	0	0	0	0	6	79	0	0	0	2	11	11												
10135	8 STRUCTURAL	50	0	0	0	0	18	20	2	2	2	5	1	0												
10140	90-91 MOTOR FRGT, TRANSP	25	0	0	0	0	0	5	5	10	0	5	0	0												
10145	92 PKG MTRL HANDL	119	1	0	0	0	2	44	2	46	5	17	2	1												
10150	93-97 OTHER	1	0	0	0	0	0	1	0	0	0	0	0	0												
FILL RATE																										
10160	TOTAL	51.3	120.0	0.0	0.0	0.0	43.9	40.0	76.9	61.2	42.2	51.6	44.4	41.6												
10165	0-1 PROF TECH MGR	20.5	0.0	0.0	0.0	0.0	0.0	5.5	0.0	50.0	0.0	25.0	66.7	41.7												
10170	20-24 CLERICAL	53.5	0.0	0.0	0.0	0.0	20.0	36.0	78.0	44.6	33.3	54.6	52.3	44.7												
10175	25-29 SALES	71.3	0.0	0.0	0.0	0.0	0.0	60.0	100.0	72.0	0.0	55.6	0.0	0.0												
10180	30 DOMESTIC	43.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	38.1	0.0	0.0												
10185	31-39 OTHER SERVICES	55.3	100.0	0.0	0.0	0.0	100.0	50.0	0.0	38.5	100.0	56.4	81.5	74.1												
MONTHLY YEAR TO DATE																										
CMSA 4560																										

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MONTHLY YEAR TO DATE

FOR PERIOD ENDING 03/31/81

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TABLE 10 - ALL JOB OPENINGS RECEIVED AND FILLED BY INDUSTRIAL DIVISION AND OCCUPATIONAL CATEGORY

OCCUPATIONAL CATEGORIES AND DIVISIONS		OPENINGS BY INDUSTRIAL DIVISION												
FILE NO		TOTAL	AGR	MINING	CONSTR	MFG	TRANSP & UTIL	WHS & RETAIL	FINANCE	SERVICES	PUBLIC ADMINISTRATION	GOVT		
A	B	C	D	E	F	G	H	I	J	K	L	M		
10190 4	FARM F & F	14.5	142.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.8		
10195 5	PROCESSING	34.1	0.0	0.0	0.0	32.1	0.0	50.0	0.0	57.1	0.0	0.0		
10200 6	MACHINE TRADES	40.1	0.0	0.0	50.0	41.2	100.0	23.5	0.0	50.0	0.0	0.0		
10205 7	BENCH WORK	43.8	0.0	0.0	75.0	39.9	0.0	0.0	0.0	100.0	100.0	100.0		
10210 8	STRUCTURAL	44.2	0.0	0.0	42.9	47.6	33.3	100.0	100.0	35.7	25.0	0.0		
10215 90-91	MOTOR FRGT, TRANSP	62.5	0.0	0.0	0.0	71.4	83.3	52.6	0.0	62.5	0.0	0.0		
10220 92	PKG MTRL HNDL	73.5	100.0	0.0	66.7	62.0	200.0	73.0	71.4	121.4	100.0	100.0		
10225 93-97	OTHER	33.3	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0		
SMSA 4560														

MONTHLY YEAR TO DATE
FOR PERIOD ENDING 03/31/81

TABLE 96

APPLICANTS AND NONAGRICULTURAL JOB OPENINGS BY OCCUPATION

03/31/81

MASSACHUSETTS

STATE MASSACHUSETTS

TABLE 96

ITEM NO	OCCUPATIONAL CODE	ACTIVE FILE					NONAGRICULTURAL OPENINGS								
		TOTAL REOIS-TERED APPS	TOTAL FEMALE	VETERAN.	AGE GROUPS UNDER 22	MINORITY	ECONOMICALLY DISADVANTAGED	TOTAL RECEIVED FEDERAL CONTRACTOR LISTING	OPENING REC'D	UNFILLED	TOTAL 30 DAYS OR MORE				
96	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
96	0-1	35517	7051	3062	523	3147	1123	3930	10985	4178	7488	2470	1799		
96	000-169	24362	6133	2268	337	2010	747	2669	9715	3659	7151	1943	1520		
96	180-199	11155	1918	1394	186	1137	376	1261	1280	519	337	527	279		
96	2	59533	20337	2209	4320	4375	2916	12466	18819	5655	11399	4106	2822		
96	200-249	45189	17706	1385	3363	3376	2644	10747	13132	4901	7631	3182	2070		
96	250-299	14344	5072	824	965	999	272	1719	5687	754	3768	1004	752		
96	3	39065	14409	1928	3913	3658	3842	13924	11827	3133	7694	4134	2930		
96	300-309	3560	2226	13	353	583	819	2014	1091	103	740	355	292		
96	310-319	16238	8325	694	1812	1234	758	5090	5132	634	3659	1269	778		
96	320-389	19267	6620	1221	1748	1841	2265	6820	5604	2396	3295	2510	1860		
96	4	3997	2118	248	763	258	383	789	1723	1223	293	1434	965		
96	400-429	3490	1863	189	703	234	369	677	1560	1107	194	1378	950		
96	440-449	231	135	38	22	18	7	64	12	0	6	1	0		
96	450-461	276	9	21	30	6	7	48	151	116	93	55	15		
96	5	5392	817	453	371	480	423	1001	1266	518	863	222	160		
96	6	17043	2039	1006	1163	1204	1175	3147	3201	1212	1947	773	470		
96	7	15718	5628	776	1012	1760	1594	4248	3518	1445	2087	905	647		
96	8	21960	528	3304	1899	1457	936	3319	3153	651	1716	923	603		
96	800-839	8955	3541	1444	661	506	422	1296	1388	412	650	430	338		
96	860-899	13003	1741	1060	1230	871	514	2023	1765	239	1066	493	330		
96	9	34566	51241	2900	4326	2213	2687	7439	6896	2148	5130	2295	1772		
96	900-919	9194	525	1484	614	630	348	1681	1057	726	1276	1128	927		
96	920-929	23856	4350	1318	3571	1466	2274	5494	4790	1344	3688	1115	810		
96	930-979	1516	249	178	141	117	65	264	249	78	166	52	35		
96	X-ENTRY TOTAL	392	2241	7	36	40	120	269	0	0	0	0	0		
96	0-1	19	10	4	1	3	1	15	0	0	0	0	0		
96	2	77	52	0	10	10	21	53	0	0	0	0	0		
96	3	43	25	1	2	4	5	28	0	0	0	0	0		
96	4	2	0	0	2	0	0	1	0	0	0	0	0		
96	5	1	0	0	1	0	0	1	0	0	0	0	0		
96	6	3	0	0	0	0	0	2	0	0	0	0	0		
96	7	6	41	0	0	1	2	4	0	0	0	0	0		
96	8	12	1	1	2	0	1	6	0	0	0	0	0		
96	9	229	132	1	18	22	90	159	0	0	0	0	0		

MASSACHUSETTS 25

QUARTERLY YEAR TO DATE
FOR PERIOD ENDING 03/31/01

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TABLE 96

APPLICANTS

MASSACHUSETTS
OCCUPATION

SMSA 4560

03/31/81

MASSACHUSETTS
OCCUPATION

TABLE 96

ITEM NO	OCCUPATIONAL CODE	ACTIVE FILE										NONAGRICULTURAL OPENINGS									
		TOTAL	REGIS- TERED	APPS	ACTIVE	ANYTIME	THIS FY	TOTAL	FEMALE	VETERAN	AGE GROUPS	MINOR- ITY	ECONOMI- CALLY RE- DISAD- VANT- AGED	TOTAL	RE- CEIVED	OPENING, OPENING, REC'D, UNFILLED	FILLED	TOTAL	30 D/	OR M/	E
A		B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
96	TOTAL		8629	3876	2195	500	712	571	450	2010	1934	848	991	902	635						
96	0-1		888	422	205	93	15	70	20	123	115	81	23	65	28						
96	000-169		597	281	145	56	11	41	11	75	95	73	13	64	28						
96	180-199		291	141	60	37	4	29	9	48	20	8	10	1	0						
96	200-249		2118	805	643	45	174	110	49	422	724	422	432	274	221						
96	250-299		1543	658	561	31	132	84	39	358	471	271	252	255	213						
96	300-309		575	147	82	14	42	26	83	64	253	39	180	19	8						
96	310-319		1246	691	511	71	107	116	107	511	297	162	161	106	69						
96	320-389		93	63	61	1	10	19	20	55	23	10	10	9	5						
96	400-429		409	254	211	9	31	25	18	202	60	15	21	15	5						
96	440-449		744	374	239	81	66	72	45	254	214	137	130	82	55						
96	450-461		105	52	11	9	14	7	18	26	67	19	8	64	16						
96	5		95	46	10	7	14	7	18	24	62	14	0	64	16						
96	6		2	1	0	0	0	0	0	0	0	0	0	0	0						
96	7		8	5	1	2	0	0	0	2	5	5	8	0	0						
96	8		176	87	40	10	16	16	15	49	41	9	14	0	5						
96	9		633	313	109	50	58	43	67	147	147	57	59	39	17						
96	000-859		1044	547	417	42	94	91	93	356	224	156	98	74	40						
96	860-899		723	331	26	105	65	42	16	126	112	29	50	75	56						
96	900-919		295	150	18	45	22	14	9	59	63	22	23	40	23						
96	920-929		428	181	8	60	43	28	7	67	49	7	27	35	33						
96	930-979		1604	594	210	72	167	68	91	222	204	23	144	49	36						
96	X-ENTRY TOTAL		318	137	20	49	20	18	3	55	40	2	25	6	4						
96	3		1220	435	184	16	142	47	88	162	161	21	118	41	32						
96	3		66	22	6	7	5	3	0	5	3	0	1	2	0						
96	3		1	0	0	0	0	0	0	0	0	0	0	0	0						
96	3		1	0	0	0	0	0	0	0	0	0	0	0	0						

MONTHLY YEAR TO DATE
FOR PERIOD ENDING 03/31/81

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SH15A 4560

Job Bank Openings
by Occupational Category
March 1981

	State	Boston	Fall River	Fitchburg	Lawrence	Lowell	New Bedford	Pittsfield	Springfield	Worcester	Balance of State
	7,510	2,514	157	222	550	290	250	158	680	842	2,083
TOTAL - ALL OCCUPATIONS	992	457	8	7	43	38	32	25	150	103	146
Professional, Technical, Managerial	220	63	--	2	3	22	7	4	29	9	27
Architect & Engineering	30	34	1	--	2	7	1	--	4	--	15
Math. & Physical Sciences	148	41	1	--	1	3	2	3	54	11	33
Life & Social Sciences	14	18	--	1	12	--	1	--	18	2	4
Medicine & Health	13	5	--	--	--	--	6	--	1	--	1
Education	4	3	--	--	--	--	--	--	--	1	--
Museum, Library	10	3	1	--	--	--	--	--	3	--	2
Law, Jurisprudence	3	--	--	--	1	--	--	--	2	--	1
Writing	2	--	--	--	--	--	--	--	1	--	--
Art	121	63	--	--	14	4	7	3	7	18	11
Entertainment	266	164	4	1	11	1	5	11	18	15	45
Administrative Spec.	62	10	--	2	4	--	2	2	7	34	5
Managers	2,131	938	34	29	123	53	35	17	81	249	629
Miscellaneous, Prof., Tech., Mgr.	699	417	9	8	43	27	11	4	35	39	122
Clerical Sales	440	240	11	12	18	4	12	5	24	31	87
Stenography, Typing & Related	129	36	--	4	35	8	2	--	2	15	48
Computing Acc't, Recor.	81	47	6	1	4	--	2	2	3	4	11
Prod. & Stock Clerk	49	25	--	2	2	--	--	--	3	9	6
Information Distr.	29	3	2	2	1	--	--	2	5	4	19
Misc. Clerical	704	82	6	--	20	11	8	4	9	147	336
Salespersons Services											
Miscellaneous Sales											

Job Bank Openings
by Occupational Category
March 1981

	State	Boston	Fall River	Fitchburg	Lawrence	New Bedford	Pittsfield	Springfield	Worcester	Balance of State
				Leominster	Haverhill*			Chicopee		
Service	1,399	320	16	22	68	60	20	200	166	492
Domestic Service	84	57	--	--	5	8	13	4	7	16
Food & Beverage Preparation	273	98	2	6	21	--	--	18	19	99
Protective Services	442	59	9	6	8	44	--	51	80	133
Building & Related	129	46	1	--	14	6	1	11	22	21
Other Service Occupations	471	60	4	10	20	2	6	116	31	223
Farming, Fishing, Forestry	209	38	5	--	2	--	0	45	26	69
Plant Farming	104	36	5	--	2	--	--	22	--	29
Animal Farming	5	1	--	--	--	--	--	--	-1	2
Forestry	100	1	--	--	--	--	--	23	25	38
Processing	246	33	18	47	20	1	4	30	17	67
Ore Refining, Foundry	22	--	3	--	1	--	2	2	2	11
Food, Tobacco	32	10	--	3	1	--	2	2	1	11
Paper	1	--	--	--	--	--	--	--	1	--
Chemicals, Plastics, Synthetics	141	11	14	39	7	--	--	24	12	27
Stone, Clay, Glass	3	--	1	--	--	--	--	--	--	3
Leather & Textiles	23	2	--	5	10	--	--	2	--	3
Processing Occupations NEC	24	10	--	--	1	1	--	--	--	13

Job Bank Openings
by Occupational Category
March 1981

	State	Boston	Fall River	Fitchburg	Lawrence	Lowell	New Bedford	Pittsfield	Springfield	Worcester	Balance of State
									Chicopee		
									Holyoke		
Machine Trades	602	138	17	34	67	24	34	31	41	69	184
Metal Machining	149	46	8	4	7	4	3	2	20	23	35
Metal Working NEC	80	19	--	--	24	3	--	--	1	11	36
Mechanics & Repair	150	43	3	6	8	14	9	4	9	18	41
Printing & Paperworking	33	4	--	--	9	--	2	7	7	3	5
Wood Machining	54	17	--	--	2	--	--	2	--	2	33
Textiles	51	3	6	7	6	--	20	1	--	9	3
Machine Trades NEC	85	6	--	17	11	3	--	15	4	3	31
Benchwork	702	158	45	27	72	47	66	36	63	60	176
Metal Products	131	64	--	4	1	--	6	--	3	7	47
Scientific & Electrical Equipment	242	45	--	1	24	33	54	25	31	6	39
Plastics, Synthetic Rubber	10	2	--	2	4	--	--	1	--	--	2
Stone & Wood Products	20	4	--	--	2	--	--	1	--	--	12
Textile, Leather	249	40	45	12	34	8	5	9	24	40	55
Benchwork Occupations	50	5	--	8	11	6	1	--	5	7	23
Structural	605	241	10	17	42	34	15	17	38	50	157
Metal Fabrication	125	77	3	5	12	13	1	2	4	2	16
Welders	69	23	--	--	9	--	--	0	10	2	29
Electrical	76	34	1	1	4	4	3	1	12	6	13

Job Bank Openings
by Occupational Category
March 1981

	State	Boston	River	Fall	Fitchburg	Lawrence	Lowell	Bedford	Pittsfield	Springfield			Balance
										Chicopee	Holyoke	Worcester	
Structural (continued)													
Painting	33	10	1	--	--	5	8	2	4	1		3	2
Excavating, Grading etc.	25	20	--	--	--	--	1	--	1	--		--	2
Construction NEC	243	72	4	11	11	9	6	5	8	8		30	84
Structural Occupations NEC	34	5	1	--	--	3	2	4	1	3		7	11
Miscellaneous													
Motor Freight Occupations	624	191	4	39	39	113	33	21	8	32		102	163
Transportation Occupations	76	32	--	7	7	13	1	1	2	--		14	13
Packing, Material Handling	70	30	--	--	--	--	--	10	2	1		3	24
Production Distribution of Utilities	439	126	4	30	30	99	30	8	3	20		82	111
Graphic Art Work	14	1	--	2	2	--	--	--	1	7		1	2
Other	20	2	--	--	--	1	--	1	--	4		2	11
	5	--	--	--	--	--	2	1	--	--		--	2

* Lawrence/Haverhill data for February

Source: Job Bank - March 1981

NEC: Not elsewhere classified

Average Pay by Occupational Category
 Massachusetts Job Banks
 March 1981

	State	Boston	Fall River	Fitchburg	Lawrence	Lowell	New Bedford	Pittsfield	Springfield	Chicopee	Holyoke	Ware	Ware	Balance of State
TOTAL - ALL OCCUPATIONS	\$ 9,576	\$ 10,413	\$ 8,347	\$ 8,396	\$ 9,378	\$ 10,068	\$ 8,842	\$ 9,520	\$ 10,289	\$ 8,826	\$ 8,896			
Prof., Tech., Managerial 2/														
Architect & Engineering	14,844	16,286	15,149	13,029	12,807	18,307	11,292	11,627	14,099	11,826	13,711			
Math. & Physical Sciences	18,729	20,294	--	16,200	13,440	18,075	13,294	19,500	18,008	17,843	15,737			
Life & Social Sciences	19,112	20,256	16,000	--	17,304	23,563	10,400	--	18,269	--	16,960			
Medicine & Health	13,078	15,057	13,165	10,600	10,500	9,000	--	9,758	12,850	9,416	14,500			
Education	12,749	12,983	10,400	--	10,000	12,827	11,660	12,480	13,171	12,209	12,086			
Museum, Library	12,549	12,860	--	9,000	11,100	--	9,500	--	12,123	9,640	16,169			
Law Jurisprudence	9,752	11,494	--	--	--	--	7,800	--	10,625	--	11,878			
Writing	15,103	15,804	--	--	--	--	--	--	--	13,000	--			
Art	14,346	18,152	7,662	--	--	--	--	--	--	--	--			
Entertainment	11,000	--	--	--	16,916	--	--	--	13,000	--	14,000			
Admin. Spec.	12,480	--	--	--	--	--	--	--	10,400	--	12,200			
Managers	14,087	15,398	--	--	12,980	--	--	--	13,000	--	--			
Misc., Prof., Tech.,	14,293	15,053	18,492	11,700	13,099	--	10,610	11,573	13,712	12,940	14,202			
	9,662	12,375	--	13,750	13,966	--	10,000	8,800	14,271	13,266	12,451			
Clerical Sales 2/														
Steno., Typing & Related	8,211	8,544	7,819	8,215	8,713	8,433	8,032	8,459	8,774	7,798	7,774			
Computing Acc't., Recor.	8,634	8,721	8,138	7,852	9,082	8,975	7,940	8,751	8,378	8,109	8,742			
Prod. & Stock Clerk	8,169	8,255	7,592	8,508	9,328	8,294	8,080	8,216	8,138	7,846	8,013			
Information Distr.	8,430	9,104	--	8,320	8,109	8,832	12,640	--	7,984	8,525	7,540			
Miscellaneous Clerical	8,430	8,800	7,696	7,800	7,722	--	7,124	6,968	7,281	10,184	7,667			
Salespersons Services	8,920	8,726	--	8,108	8,060	7,973	--	--	8,533	8,706	11,272			
Miscellaneous Sales	12,778	18,867	10,400	--	15,600	--	--	--	10,400	--	12,682			
	7,549	8,143	7,072	8,020	8,343	7,233	7,163	8,963	11,856	--	7,089			

Average Pay by Occupational Category
Massachusetts Job Banks
March 1981

	State	Boston	Fall River	Fitchburg Leominster	Lawrence Haverhill 1/	Lowell	New Bedford	Pittsfield	Springfield Chicopee Holyoke	Worcester	Balance of State
<u>Service 3/</u>	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Domestic	3.94	3.94	3.42	3.39	3.87	3.55	4.32	3.43	4.12	4.00	3.91
Food & Beverage Preparation	3.49	3.50	--	--	3.50	--	--	--	3.35	3.50	3.48
Protective Services	4.05	4.07	3.35	3.35	3.88	3.84	5.35	3.35	4.19	3.84	4.16
Building & Related Prods.	3.95	3.92	3.37	3.48	4.05	3.49	4.41	--	4.31	4.12	3.83
Other Service Occupations	3.91	4.15	3.75	--	4.18	3.54	3.81	4.12	3.86	3.74	3.84
	3.95	4.00	3.48	3.35	3.66	3.75	3.43	3.47	4.07	4.05	3.91
<u>Farming, Fishing, Forestry 3/</u>											
Plant Farming	4.13	4.39	3.50	--	4.50	--	4.33	--	4.04	3.40	4.02
Animal Farming	3.92	4.37	3.50	--	4.50	--	4.33	--	3.59	--	3.54
Forestry	3.95	4.00	--	--	--	--	--	--	--	3.40	4.18
	4.43	5.50	--	--	--	--	--	--	4.46	--	4.37
<u>Processing 3/</u>											
Ore Refining, Foundry	4.24	4.12	3.80	4.00	4.36	5.00	4.75	3.43	5.44	4.47	3.95
Food, Tobacco	4.07	--	4.00	--	3.50	--	--	3.50	5.43	4.00	3.81
Paper	3.96	3.91	--	4.67	4.00	5.00	--	3.35	4.18	3.75	3.88
Chem., Plastic, Synthetic	3.50	--	--	--	--	--	--	--	--	3.50	--
Stone, Clay, Glass	4.37	3.95	3.70	3.95	5.27	--	3.75	--	5.65	4.75	4.11
Leather & Textiles	4.21	--	4.64	--	--	--	--	--	--	--	4.00
Processing Occup. NEC	4.30	4.50	--	4.00	3.87	--	5.25	--	4.20	3.75	3.55
	4.11	4.45	--	--	4.00	--	--	--	--	--	3.85
<u>Machine Trades 3/</u>											
Metal Machining	5.05	5.70	4.04	4.02	4.60	5.34	5.00	5.18	5.32	4.86	4.88
Metal Working NEC	5.73	6.12	4.30	5.30	6.36	5.63	6.75	5.20	5.62	5.21	5.94
Mechanics & Repair	4.49	4.39	--	--	4.15	4.42	--	--	3.80	4.43	4.55
	5.41	5.48	4.33	5.19	6.08	5.64	4.67	4.69	4.93	4.83	5.92

Average Pay by Occupational Category
Massachusetts Job Banks
March 1981

	State	Boston	Fall			Lawrence Haverhill 1/	Lowell	New Bedford	Springfield			Balance of State
			River	Fitchburg	Leominster				Pittsfield	Chicopee	Worcester	
Printing & Paperworking	\$ 4.51	\$ 5.25	\$ --	\$ --	\$ --	\$ 4.05	\$ 4.35	\$ 5.00	\$ 4.64	\$ 4.91	\$ 3.86	\$ 3.90
Wood Machining	5.07	7.32	--	--	--	3.75	--	--	4.50	--	4.25	4.00
Textiles	4.34	3.40	3.55	3.35	3.51	4.25	4.88	4.89	3.50	--	4.83	3.78
Machine Trades NEC	4.37	5.02	--	--	--	4.19	--	--	5.76	5.85	5.54	3.88
<u>Benchmark 3/</u>												
Scientific & Elect. Equipment	3.97	4.50	--	6.00	--	3.89	3.82	3.42	4.35	3.48	3.44	4.50
Stone & Wood Products	3.68	4.25	--	3.75	--	3.35	--	--	3.50	--	--	3.50
Textile, Leather	3.67	3.76	3.79	3.43	--	4.19	3.98	4.25	3.47	3.41	3.60	3.66
Metal Products	3.59	3.40	--	3.55	--	6.00	--	3.42	--	3.57	3.61	3.86
Other Benchmark Occupations	4.71	4.70	--	3.73	--	4.02	4.92	4.00	3.50	4.00	4.03	3.68
<u>Structural 3/</u>												
Metal Fabrication	5.45	5.81	4.95	4.93	--	6.62	5.60	4.52	5.24	6.31	4.66	5.11
Welders	5.77	5.86	4.99	4.27	--	7.60	6.42	5.76	4.00	7.87	5.00	5.09
Electrical	5.58	5.78	--	--	--	6.25	--	--	--	6.30	5.00	5.13
Painting	5.71	6.18	5.00	3.50	--	6.93	4.56	6.08	8.18	5.26	5.77	5.20
Excavating, Grading etc.	5.78	7.27	7.00	--	--	4.35	4.88	4.00	5.00	5.00	7.00	5.00
Construction NEC	5.00	4.50	--	--	--	--	6.00	--	7.00	--	--	7.00
Structural Occupations NEC	5.31	5.82	4.75	5.36	--	7.33	5.78	4.05	5.05	7.59	4.33	5.16
	4.37	4.77	3.50	--	--	5.00	4.50	3.90	5.50	5.46	3.96	4.28

Average Pay by Occupational Category
Massachusetts Job Banks
March 1981

	State	Boston	Fall River	Fitchburg Leominster	Lawrence Haverhill 1/	Lowell	New Bedford	Pittsfield	Springfield			Worcester	Balance of State
									Chicopee	Holyoke			
Miscellaneous 3/	\$ 4.38	\$ 4.16	\$ 3.45	\$ 3.96	\$ 4.06	\$ 4.19	\$ 3.73	\$ 4.38	\$ 4.91			\$ 4.11	\$ 4.47
Motor Freight	4.78	5.06	--	3.96	4.04	5.75	3.35	3.75	--			4.57	5.48
Transportation Occup. NEC	4.41	4.21	--	--	--	--	3.73	3.35	--			3.65	5.18
Packaging, Materials Handling	4.00	3.87	3.45	3.68	4.07	4.15	3.71	5.08	3.50			4.01	4.16
Prod. Distrib. of Utilities	7.11	8.34	--	8.17	--	--	--	5.62	4.16			5.79	4.50
Graphic Art Work	4.27	5.06	--	--	4.00	--	4.38	--	7.78			4.68	4.14
Other	5.75	--	--	--	--	4.00	3.75	--	4.01			--	8.50

1/ Lawrence/Haverhill data for February

2/ Average yearly salary

3/ Average Hourly pay

Source: Job Bank - March 1981

NEC: Not elsewhere classified

ACME
BOOKBINDING CO. INC.

OCT 28 1990

100 CAMBRIDGE STREET
CHARLESTOWN, MASS.

